The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1747.—Vol. XXXIX. LONDON, SATURDAY, FEBRUARY 13, 1869. (WITH SUPPLEMENT) {STAMPED ....SIXPENCE, UNSTAMPED..FIVEPENCE

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET, has FOR SALE the following shares, free of commission :—

50 Anglo-Brazil., 11s. 3d	15 Frank Mills, £3 13s 9	50 Port Phillip, £1 18s 9
35 Australian United Gold, £1⅛.	50 Gen. Brazilian, 8s 6d	50 Royalton, 29s.
	15 Great Laxey, £19⅜.	25 So. Herodsfoot, 20s.
25 Brynpostig, £1⅛.	25 Gt. No. Laxey, 35s.	50 So. Condurrow, 19s 3d
50 Caldbeck Fells, 14s 6d	10 Great Wh. Vor, £12¼	20 South Darren, 33s. 6d.
50 Carn Camborne, 12s 3	50 Gonamena, 21s. 6d.	25 Sao Vicente, 17s. 9d.
100 Chontales, £1⅜.	2 Herodsfoot, £46.	10 St.John del Rey, £18½
15 Chiverton, £3¼.	15 Marke Valley, £9¼.	100 Taquaril, 13s. 6d.
50 Don Pedro, £3⅛ pm.	20 New Lovell, £3 3s 9d.	50 W. Godolphin, 22s 6d
10 E. Carn Brea, 6s. 9d.	35 No. Treskerby, 19s 9d	5 Wh. Mary Ann, £21¼
10 East Lovell, £8 7s. 6d.	25 Pestarena, 28s. 6d.	5 Wt. Chiverton, £53½.
15 E. Grenville, £3 18s 9	50 Prince of Wales, 26s 9	15 Wheal Uny, £3⅝.
50 Frontino, 9s. 3d.	50 Princess Wales, 3s 9d	

MR. WILLIAM WARD, STOCK AND SHAREDEALER, No. 29, THREADNEEDLE STREET, LONDON, E.C.

MESSRS. WILSON, WARD, AND CO., STOCK AND SHAREDEALERS, 16, UNION COURT, OLD BROAD STREET, LONDON, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER, 224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C. Bankers: London and Westminster, Lothbury.

OFFICE OF THE
WHEAL MARY FLORENCE MINING COMPANY (LIMITED),
74, OLD BROAD STREET, LONDON.

MR. JAMES HUME, STOCK AND SHAREDEALER, 74, OLD BROAD STREET, LONDON, E.C.

Has BUSINESS in—

5 W. Chiverton, £54.	50 North Treskerby, 20s.	10 Great Vor, £12.
20 Chiverton, £3.	20 East Grenville.	20 West Jane, 10s.
20 East Caradon, £9.	20 Uny, £37⅛.	20 Grenville, 40s.
50 Prince of Wales, 26s.	50 So. Condurrow, 20s.	50 Taquaril, 6s. pm.
40 Drake Walls, 19s.	10 East Lovell, £8½.	50 Chontales, £1¼.

Mr. J. HUME'S "Circular" for February is now ready, price 6d., containing reliable information on several mines at present occupying attention, and is a safe guide to investors.
Bankers: The London Joint-Stock Bank.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER, 74, OLD BROAD STREET, LONDON, E.C.
Fifteen years' experience in Cornwall and London.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER, No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS in West Godolphin, Summer Hill, North Pool, South Condurrow, South Merilyn, New Lovell, Great South Chiverton, South Darren, and North Levant.
Holders of Stock difficult of sale in the open market may find purchasers on application to the above.
BUYER of 75 West Godolphin.

MR. JOHN MOSS, STOCK AND SHAREDEALER, ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Business as BUYER or SELLER in Chontales, Don Pedro, General Brazilian, and Taquaril Gold shares.
Bankers: City Bank, Finch-lane, E.C.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER, ETHELBURGA HOUSE, BISHOPSGATE STREET WITHIN, E.C.
Established Eleven Years.
Bankers: City Bank, London, E.C.

Established Fifteen Years.

MESSRS. WARD AND JACKMAN, STOCK AND SHAREDEALERS, No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Messrs. WARD and JACKMAN have daily information from the principal seats of mining, which is at the service of those who may honour them with their confidence.
Feb. 12. Bankers: London and Westminster, Lothbury.

MR. C. A. POWELL, STOCK AND SHAREDEALER, No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
Business as BUYER or SELLER of shares in all the Leading Dividend and Progressive Mines.
Feb. 12. Bankers: City Bank, Finch-lane.

MATTHEW GREENE, STOCK AND SHAREDEALER, 1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.
TAMAR VALLEY SILVER-LEAD.—I still recommend the purchase of these shares. The mine is progressing fast towards a highly remunerative state. See reports in this day's Journal.
Mr. GREENE has just returned from a tour of inspection of the mines in Mid-Wales. Special information concerning the Van Mine and all other mines in the district. BUYER of New Clifford shares.

MR. J. J. REYNOLDS, 3, GREAT WINCHESTER STREET BUILDINGS, OLD BROAD STREET, LONDON, transacts business in British and Foreign Stocks, Shares, and Miscellaneous Securities, at close market prices.
J. J. REYNOLDS has, at great trouble and expense, been enabled to make a selection of a few mines which will advance cent. per cent. in market value during the next few months.
J. J. REYNOLDS, having frequently been prevented from executing the commissions of his clients, on account of the general public having followed the advice which he had advertised, has determined to publish his opinions every Saturday, in cypher, which will only be intelligible to those who possess the key.
J. J. REYNOLDS congratulates his friends upon the success of his selection for 1868, and is confident that the one made for 1869 will prove still more advantageous to those who follow it.

MR. J. J. REYNOLDS has FOR SALE the following SHARES at the prices annexed :—

20 Anglo-Argent., £1 6 3	1 Devon Gt. Con., £305.	10 Foxdale, £37⅜.
10 Anglo-Brazil., 10s. 6d	40 Don Pedro, £3¾ pm.	100 Glan Alun, 12s. 9d.
3 Cook's Kitchen, £12⅝	50 Drake Walls, 18s. 3d.	50 Gt. So. Chiverton, 20s
5 Cwm Erfin.	5 East Caradon, £8⅝.	20 New W. Lovell, £3¼
20 Chiverton, £2⅞.	30 East Carn Brea, 8s 6d	10 Pedn-an-drea, £5.
5 Chiverton Moor, £4¼	20 East Grenville, £3⅞.	20 Wh. Margaret, £5¼.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the FOLLOWING SHARES, at net prices :—

20 Anglo-Brazilian, 10s 6	50 Frontino, 8s. 9d.	5 St. John del Rey, £17¼
12 Cwm Darren, £30	20 Great Laxey, 33s. 9d.	20 Summer Hill, 36s.
24 Chontales, £1 6s. 3d.	30 Gt. Retallack, £2 12s.	50 West Godolphin.
40 Caldbeck Fells, 12s.	5 Great Vor, £12⅛.	3 West Chiv., £53½.
25 Chiverton, £2 19s. 6d.	2 Herodsfoot, £46.	3 West Frances, £41⅞.
10 Chiv. Moor, £4¼.	5 Marke Valley, £9 1s 9	1 West Seton, £200.
20 Don Pedro, £3 13 9 pm.	50 No. Treskerby, 19s 6d	20 Wheal Grenville, 38s 9
40 Drake Walls, 18s. 3d.	20 New Lovell, £3⅛.	10 Wheal Kitty, £4 8s 9
5 East Caradon, £9.	30 Prince of Wales, 24s 9	5 Wh. Margaret, £5¼.
5 East Lovell, £8 6s 3d.	50 Port Phillip, 38s. 3d.	1 Wheal Seton, £75⅛.
40 E. Grenville, £3 16s 9	10 Rose and Chiverton.	10 Wheal Uny, £3 11s 3d
50 Frank Mills, £3 16s. 9	50 Rossa Grande, 12s pm.	50 Yudanamutana, 38s.
	50 So. Condurrow, 20s.	

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER at net prices of :—
200 Anglo-Brazilian, 9s.; 15 Maes-y-Safn, £21; 10 Cwm Darren; 20 Rose and Chiverton, £6; 50 Great North Laxey 33s. 9d.; 100 Crebor, 6s. 9d.; 100 Lovell Consols; 90 Redmoor, 5s.; 80 Camborne Vean, 12s.; 200 Glan Alun, 12s.; 60 Caudlin; 25 Penhalls, £5¾; 80 North Jane; 50 Wheal Mary Florence, 19s. 6d; 100 Princess of Wales, 3s. 9d.; 40 Prince of Wales, 23s. 9d.; 200 Anglo-Italian; 100 Taquaril, 5s. prem.; 50 Chontales, 23s. 6d.; 40 Wheal Grenville, 38s.; 90 Great South Chiverton; 5 Marke Valley, £9¼; 35 North Treskerby, 17s. 9d.; 100 Tamar Valley; 2 Providence, £37; 4 Wheal Seton, £79; 20 Great Vor, £12; 100 East New Wheal Lovell; 120 South Grenville, 7s.; 5 Tincroft, £17⅛; 50 Chiverton, 31s.; 100 Royalton; 20 Pedn-an-drea; 40 Sparnon.

GREAT WHEAL VOR.—PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST," of yesterday, Feb. 5, 1869, contains IMPORTANT INFORMATION respecting the PROSPECTS of this MINE, and as to the PRESENT and FUTURE PROFITS, &c. He strongly recommends an immediate purchase of the shares, as the Dividends will likely be increased, and the shares have a great rise.

CORNISH AND FOREIGN MINES—TO SHAREHOLDERS AND OTHERS.
PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Feb. 12, No. 519, Vol. XI., price 6d. each copy, forwarded on application, contains information on the following mines :—

North Wheal Crofty.	Frank Mills.	East Trumpet.
East Wheal Seton.	Chontales.	North Treskerby.
Prince of Wales.	West Caradon.	Great Vor.

With Statistical Information on the Tin Trade.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to *bona fide* investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.
PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules-passage, entrance to the Stock Exchange).
Twenty-four years' experience.
(Two in Cornwall and Twenty-two in London.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.
PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE, STOCK AND MINING SHAREDEALER, 76, OLD BROAD STREET (and Mining Exchange), LONDON, E.C.
Mr. COOKE still advises the purchase of Great Western, Great Wheal Vor, East New Lovell, New Wheal Lovell, Prince of Wales, and Frank Mills shares, feeling confident of a considerable advance in price.
BUYER of Frank Mills, New Wheal Lovell, and West Great Work shares, at market prices. References given.
Price-list sent free on application.
Bankers: Alliance Bank.

MR. W. H. CUELL, No. 42, CORNHILL, LONDON, E.C.
SPECIAL BUSINESS—

East Caradon.	Pedn-an-drea.	Prince of Wales.
West Chiverton.	West Frances.	Henrietta.
		West Tolgus.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. S. GOMPERS, JUN., STOCK AND SHAREDEALER, 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
Mr. GOMPERS strongly advises the purchase of East Caradon shares.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.
T. R. has BUSINESS in the following mines, at close market prices :—

Bedford United.	Frontino and Bolivia.	Tincroft.
Chiverton.	Great Wheal Vor.	West Caradon.
Chiverton Moor.	Marke Valley.	West Chiverton.
Cook's Kitchen.	North Treskerby.	Wheal Grenville.
East Caradon.	New Lovell.	Wheal Seton.
East Carn Brea.	Prince of Wales.	Wheal Uny.
East Grenville.	Pedn-an-drea.	Kitty (St. Agnes).
East Lovell.	South Crofty.	

Parties interested in mining, and who wish to be guided right, should consult T. R., he not only having been a practical miner, but has been in the share market for thirteen years. Those who have hitherto consulted me have done well, and I never saw a better opportunity than the present to make money if properly employed. Shares can be exchanged to great advantage.
T. R. can recommend three mines which are sure to have a great rise this year.
T. R. should be consulted at once respecting Chontales and Prince of Wales shares. Money advanced to any extent on good mining shares.
Office hours Ten to Four. Bankers: Bank of England.

MESSRS. A. STUART AND CO., STOCK AND SHAREDEALERS, 93, BISHOPSGATE STREET WITHIN, LONDON, E.C., have FOR SALE, free of commission, for cash or account :—5 Lovell Consols, 12s. 6d.; 10 Don Pedro, £4 6s. 6d.; 10 North Treskerby, 20s.; 20 Prince of Wales, 25s.; 150 Taquaril, 12s. 3d.; 15 Royalton, £1 7s. 3d; 25 Chontales, £1¼; 5 New Lovell, £3 3s.; 1 West Chiverton, £54; 10 London Tavern, £33¼; 50 West Godolphin; 20 New Great Consols, 15s.; 10 Pestarena, £1⅜; 5 Great Laxey, £19¼; 1 East Lovell, £8½; 100 Frontino, 8s. 6d.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or the fortnightly settlement.

BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR AND FINANCIAL RECORD"
(Published on the first Wednesday in each month)
Comprises—A Comprehensive Review of the Stock, Share, and Money Markets; an Enumeration and Comparison of the Whole Circle of Investments; and Valuable Suggestions for Purchase or Sale.
*** Sent free on application.
No. 2, Bucklersbury, London, E.C.

Established Twelve Years.—Twenty-four Years' Experience.
MR. F. W. MANSELL, 44, THREADNEEDLE STREET, LONDON, E.C.
TAMAR VALLEY.—Rich lead is now being returned from this mine, which will leave a profit to the shareholders. Shares should be purchased.
References exchanged.
Bankers: London Joint Stock Bank.

MR. HENRY MANSELL, 44, THREADNEEDLE STREET, LONDON, has FOR SALE the followiug shares, free of commission :—

20 North Downs, 11s. 3d	20 Great So. Chiverton.	20 Drake Walls, 19s. 6d.
30 East Grenville, £3¾.	50 Tamar Valley, £1.	150 West St. Ives (offer wanted).
300 South Grenville (offer wanted).	30 Chontales, £1¼.	
	3 Mary Ann, £21½.	30 Great Retallack.
20 No. Treskerby, 21s.	10 Wh. Chiverton, £3.	

East Caradon, New Lovell, South Condurrow, and Tamar Valley shares should be bought for a great rise shortly.
Thirteen Years' Experience.
Bankers: London Joint-Stock Bank.
References exchanged.

MR. EDWARD BREWIS, STOCK AND SHAREDEALER, No. 34, OLD BROAD STREET, LONDON, E.C., has BUSINESS, for cash or account, in all the various Mining Securities at best market prices.
SPECIAL BUSINESS in General Brazilian, Chontales, Don Pedro, Lovell Consols, Taquaril, West Chiverton, West Godolphin, and Glan Alun.
FOR SALE, SPECIAL—18 Great Laxey shares, or any part, at £19¼ net.
Bankers: The Alliance Bank, London, E.C.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.
PUBLIC SECURITIES of every description Bought and Sold upon advantageous terms. Facilities for payment, and every reliable information afforded to Investors.
LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.
Five per cent. interest allowed upon DEPOSITS of all amounts.
Money and Finance Agency Business generally undertaken.
RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT AND SHAREDEALER, 77, OLD BROAD STREET, LONDON (Established 27 years), has FOR SALE, at net prices, the following shares :—50 Trumpet Consols, £17; 50 East Trumpet, £2; 6 Providence, £36; 20 Rosewall Hill, £1¼; 100 Great Western Tin, 41s.; 100 South Great Work, 4s. 6d.; 5 East Caradon, £9¾; 100 West Godolphin; 3 Aberdynant Lead, fully paid-up; 2 Minera; and 10 Van Mine.
T. P. T. is prepared to receive applications for shares in West Nant-y-Cria Lead and Blende Mine. Praticulars and report forwarded on application.

MR. CHARLES THOMAS, MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER, 3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps,
MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE
PRINCIPAL MINES and MINING DISTRICTS of CORNWALL and DEVON.
Published by CHARLES THOMAS,
At No. 3, Great St. Helen's, London, E.C.

ESTABLISHED SEVENTEEN YEARS.
GRANVILLE SHARP AND CO., SHAREDEALERS, 32, POULTRY, LONDON, E.C.
Bankers: London and Westminster Bank, Lothbury, London, E.C.
RELIABLE INFORMATION GIVEN TO SHAREHOLDERS & INVESTORS.
All Stocks and Shares BOUGHT and SOLD at the closest market prices nett.
WANTED TO PURCHASE, the following shares, or any part, for cash :—

20 TRUMPET CONSOLS.	50 EAST CHIVERTON.	2 WEST WHEAL SETON
40 NANGILES.	200 EAST TRUMPET.	1000 NORTH JANE.
5 WHEAL SETON.	20 WHEAL TRELAWNY.	10 WHEAL MARY ANN.
500 GREAT CARADON.	10 WHEAL JANE.	100 EAST CARADON.
100 EAST GRENVILLE.	150 PRINCE OF WALES.	100 LOVELL CONSOLS.
200 WHEAL GRENVILLE.	50 NEW LOVELL.	5 PROVIDENCE.

Sellers will please state number and lowest price for cash.
N.B.—It is quite impossible to "OFFER" a list of SHARES for SALE at FIXED PRICES, as market prices vary daily, and sometimes hourly.

MR G. D. SANDY, STOCK AND SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE," published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT of CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.
6, Bond-court, Mansion House, London, E.C.
Bankers: Bank of England.

INVESTORS IN MINING COMPANIES.—Mr. CHRISTIAN recommends the immediate PURCHASE of NORTH LEVANT SHARES, whether bought to hold as an investment or to sell again. It is a splendid property, and dividends are close at hand. Although Mr. CHRISTIAN is the only person publicly recommending the purchase of shares in this sett, he does so with the greatest of confidence, feeling assured that those who buy now will do well.

CORNISH TIN MINES.—Before investing in ROYALTON, get full information about EAST ROYALTON, from
T. A. MUNDY AND CO., 38, BISHOPSGATE STREET WITHIN; or
W. HANNAM AND CO., 449, STRAND.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austinfriars, E.C.

MR. J. R. PIKE has FOR SALE the undermentioned SHARES at the following net prices :—

1 East Pool, £365.	15 East Caradon, £8¾.	18 Tin Hill, £1 5s.
50 Chiverton.	5 East Lovell, £8 7s 6d	25 East Rosewarne, 10s.
50 East Wheal Reeth.	10 Great Laxey, £19½.	1 Trumpet Consols.
25 Chiv. Moor, £4 16s 3d	25 Great No Laxey, £1 14	4 Minera, £185.
5 Cwm Darren.	15 North Roskear, £3¼.	50 So. Condurrow, £1 1 3
50 Chontales, £1¼.	20 No. Crofty, £1 1s. 3d.	10 Tincroft, £17½.
20 Drake Walls, 16s. 6d.	15 New Lovell, £3 2s. 6d	100 W Mary Florence, £1
100 Don Pedro.	50 Prince of Wales.	10 South Darren.

TIN MINES.—The price of black tin having advanced since the commencement of 1868 £20 per ton, many mines can now be worked to advantage that formerly were unprofitable. Great care, however, should be exercised in their selection for investment. Mr. PIKE can recommend two tin mines for their present excellent position and dividends during 1869.
WEST GODOLPHIN, WEST GODOLPHIN, WEST GODOLPHIN.—Shareholders in the above mine, or those intending to become so, should apply immediately to Mr. PIKE for reliable information.
GREAT WESTERN MINES.—FOR SALE, 200 shares or any part, £2 1s. 3d. per share. Established in Cornwall and London 20 years.
3, Crown Chambers, Threadneedle-street, London, E.C.

MR. THOMAS THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.
ROYALTON.—The steady increase in the price of tin is causing a great demand for shares in legitimate tin mines, and which, there can be little doubt, will become generally valuable. Investors, however, should be careful how they place money in deep and expensive mines, which can only pay profits with tin at high prices. They should rather seek an investment in those mines which, with extensive reserves, can pay profits with tin at its lowest price. Among the best of this latter class I place Royalton, and recommend the purchase of the shares wherever they may be met with. At their present price they are intrinsically very cheap indeed.

MESSRS. WILLIAMS, AND CO., MINING AGENTS, STOCK AND SHAREDEALERS, 12, PARSONAGE, ST. MARY'S, MANCHESTER.
SPECIAL BUSINESS in Great Northern Manganese Company (Limited).

ASSAYS AND ANALYSIS.—MR. JOSEPH GREEN, for the past eighteen years professional Assayer to the Chester Goldsmiths' Company, UNDERTAKES the ASSAYING and ANALYSIS of EVERY DESCRIPTION of MINERAL.
ASSAY OFFICE, CHESTER.

MR. THOMAS THOMAS, ASSAYER, &c., COPPER ORE WHARVES, SWANSEA.

MR. HENRY HOCKING, ASSAYER, PHILLIPS' PARADE, BRUNSWICK STREET, SWANSEA.
Assays of all kinds of Copper Ores, Pyrites, &c., &c., by Cornish dry assay.
Gold Quartz, Argentiferous, Iron, Manganese, Zinc, or other Ores or Minerals, assayed or analysed at the shortest notice.

MR. M. MORGANS (late of the Brendon Hills Spathose Mines), CONSULTING ENGINEER, is prepared to REPORT on MINERAL PROPERTY, DESIGN and ESTIMATE for new ENGINEERING WORK, or to undertake the efficient working of MINES, ENGINES, PUMPS, &c., by periodical inspection, on moderate terms. Twenty-eight years' practical experience in managing large collieries and mines, railway construction, erecting mining machinery, rolling mills, furnaces, &c.
OFFICES,—MANSION HOUSE, OLD PARK, BRISTOL, and No. 15, HIGH STREET, NEWPORT, MONMOUTHSHIRE.

MR. H. D. HOSKOLD, MINING ENGINEER, LAND AND MINERAL SURVEYOR CINDERFORD, NEWNHAM.
Gentlemen requiring reliable and correct information respecting any Coal Iron Mine Property in the Forest of Dean may obtain it on application.
Surveys, Plans, Reports, and Valuations on the usual moderate terms.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER (Member of the Stock Exchange), No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE, Bankers: Messrs. Lambton and Co.

Original Correspondence.

THE IRON INDUSTRY OF RUSSIA—No. II.

SIR,—The Russian Government, at the very commencement of the present century, was fully alive to the importance of exploiting the manufacture of iron with mineral fuel, and the South of Russia, apparently, offered every facility for such undertakings, particularly the provinces of Yekaterinoslaff, and the country of the Don Cossacks, where rich ore and inexhaustible coal fields abound. For 70 years has the Government continued to sacrifice enormous sums for the construction of blast-furnaces and works. This laudable desire on the part of the Government to set an example to private enterprise has, however, been entirely frustrated, as was the case in the Ural, through the incompetency of its employees. The many unsuccessful trials and experiments with furnaces which would not act, and other shortcomings, had to such an extent frightened private industrials, that few could be found to venture on the establishment of private works. The various blunders committed during these 70 years, the amount of Government money spent, and the disappointment experienced by proprietors of mines, are inconceivable. The principal cause of all this, it would appear, is the ignorance of the localities most suitable for economical operations. No sooner were works completed than alterations were made; they were thereupon pulled down, and another site chosen. This was the case, among others, with the Petroffsky Iron Works, constructed on what proved to be to the Russian mining engineers an unavailable site, at a distance of 3 versts from the celebrated Soffiesk coal beds, which afford all the conditions necessary for the successful prosecution of ore smelting. Other works were founded in the north-eastern part of the Donetz coal basin; at Lissitchansk, on the River Don, apparently also without due regard to the necessary requirements, for among the disadvantages reported to be one of the main causes of failure is the quality of the coke obtained from the Lissitchansk coal, which can be produced only from large lumps, the smaller coke will not cake together, and is also so light that it will not bear the weight of the ore. The production of good and cheap pig-iron was, therefore, found to be impossible. It has now been ascertained, after much controversy, that the western portion of the Donetz coal basin is more suitable for mining operations and the manufacture of iron.

The only Government establishment which seems to have been moderately prosperous are the Lugan Works, one of the first, if not the very first, works of the kind founded in the South of Russia. But here, again, the original purpose for which they were established seems to have been lost sight of, for shortly after their completion the operations were chiefly limited to the converting of Uralian pig-iron into projectiles for the Black Sea fleet. Here it naturally suggests itself that it would have been far more profitable for the Government to supply the projectiles to the fleet ready made direct from the Ural; but such was the corrupt state of things formerly in Russia in all matters of national economy with which the Government was connected, and so flagrant were the abuses of its officials, who invariably sacrificed the interests of the State with the view of forwarding their own, that the occurrence of such incongruities is scarcely to be wondered at. This state of things, it would appear, will account far more fully than any of the preceding reasons given for the failure of Government enterprise in the Russian empire.

The principal coal fields of the province of Yekaterinoslaff are situated in the Mioussk district, through which will pass the Charkoff Azoff Railway, at present being constructed, the shares of which have been extensively taken up in this country; it is the last link of uninterrupted railway communication between the Sea of Azoff and the Baltic. From Azoff the line will be extended to Rostoff, on the Don, at present already in communication with the coal districts of the Don Cossacks, which, like the Mioussk district of the province of Yekaterinoslaff, produce several descriptions of coal, from anthracites to coal giving 70 per cent. of excellent coke and good gas coal. It is evident that the Charkoff Azoff Railway, upon its completion, is destined to give a great impetus to the coal and iron trades of Southern Russia.

The coal of the South of Russia is sold chiefly under the denomination of Grousheffsky anthracite and Yekaterine coal. Notwithstanding that the coal at present discovered in the South is found to be adequate for the supply of the adjacent provinces, and the whole of the steam navigation of the Volga, the use of it is chiefly local, on account, as is stated, of the dearness of the carriage inland. As an exception, may be taken the anthracite which is conveyed *via* Tzaritsin, over the Volga-Don Railway, and down the Volga, for supplying the Caspian steamers. Here a somewhat curious sight presents itself, illustrating the force of routine—a train laden with coal, drawn by an engine using wood fuel! The town of Odessa itself, notwithstanding its comparative proximity to the coal districts, consumes very little anthracite and Yekaterine coal; this, however, may be explained by the competition of the British mineral. The best Cardiff coal is sold at Odessa at from 18 to 20 cop. per pood (1*l.* 10s. to 1*l.* 13s. 6d. per ton), and other descriptions of British coal at from 15 to 18 cop. per pood (1*l.* 5s. to 1*l.* 10s. per ton). The Russian coal costs 25 cop. per pood, or 2*l.* 2s. per ton.

There can be no doubt that with the extension of railways in the South of Russia British coal will gradually become substituted at the ports of the Black Sea by Russian product. It should be observed that the quantity of wood fuel which feeds the extensive steam navigation of the Volga, and which is consumed by all the railways, factories, and works of Russia, and used for private purposes, has caused in many districts a scarcity of that article, and consequent high prices. The Volga and Kama steamers alone consume annually 350,000 cubic fms. of 7 feet, which, together with the towns situated on the Volga, is estimated at 500,000 cubic fathoms, consisting chiefly of fir, pine, and birch wood. The Government of Nijni Novgorod is also celebrated for its production of iron.

Poland also contributes to the iron trade, wrought-iron being the produce of the Governments of Random, Ostrowice, and Lublin; coal and zinc are also found in that country. Finland is conspicuous for its excellent ore, which is obtained from the beds of its innumerable lakes. Mr. Poutiloff is the principal manufacturer of steel in that duchy, and contracts with the Government for the supply of steel projectiles, manufactured under the supervision of English managers. In the year 1865 there existed on the whole extent of Russian territory considerably under 100 establishments representing the more complicated branches, and directly connected with the manufacture of various specialities in connection with the iron industry (exclusive of manufactories of hardware, cutlery, and the like). Of these 31 were for the construction of steam-engines, 26 for agricultural implements, and the rest included foundries, rolling mills, &c., and works for general repairs. The production of all these establishments together amounted to 13,000,000 roubles, of which the Government works alone represented the sum of 2,300,000 roubles; private works executing Government orders, 4,000,000 roubles; so that for *bona fide* private account there remained only 6,500,000 roubles.

In view of the great extension of railways in Russia, and the proportionate demand for rails, several private firms in that country (including the English Vyksounsky Company) have undertaken to supply the same to the Government, which is evidently trying all means to encourage that industry, under pressure of the Conservative element prevailing strongly in Russia, whose object is, if possible, to render the country by degrees independent of the foreign article. Thus, in the beginning of 1868, Messrs. Shipeleff contracted to supply 5,000,000 poods of rails (about 79,365 tons); Mr. Demidoff, 2,000,000 poods (31,746 tons). Mr. Poutiloff, of St. Petersburg, engaged to furnish the Government yearly with 400,000 poods (6349 tons), for a term of seven years. He entered, besides, into a separate contract to manufacture 600,000 poods (9468½ tons) of rails during the winter months of 1868, for the Nicolai Railway.

Mr. Poutiloff, at the great iron works on the Narva road, about three versts from St. Petersburg, lately belonging to General Ogareff, commenced with the re-rolling of the worn and battered English rails of the Nicolai Railway, which, by the addition of puddled steel, it is said produced rails of excellent quality. This was proved by experiments conducted and attested in the presence of the Minister of Ways of Communication, and other authorities and experts. The trial is said to have been conducted in the following manner:—One of the re-rolled rails was taken indiscriminately from the bulk, placed on two supports under the "monkey," which was let fall on to the rail from a height of 19 feet; the latter merely bent, forming an obtuse angle of 150°. Thereupon, the same rail was turned with the apex of its V-angle upwards, and subjected to the same test, which had the effect of straightening it again. This operation was repeated once more, and, upon undergoing the strictest scrutiny of those present, was found to have sustained no injury whatever. On subjecting the English rail to the same trial it is reported to have broken in two by a blow from the "monkey," falling 6 feet only (?). According to a Russian statement, Mr. Poutiloff has solved a difficulty in rail rolling—that of welding a puddled steel facing on to an ordinary rail, a feat which they say has been tried in vain both in England and Belgium. A rail of this description was also in the course of the experiments subjected to a white heat, and afterwards immersed in snow during a frost of 15° Reaumur, when the steel was found to be perfectly welded on to the rail. All this, of course, was intended as a demonstration, with a view of showing that Russia is at present able to dispense with foreign ingenuity. To prove the interest excited throughout all classes in this undertaking, may be taken the *fete* given in November last, by Mr. Poutiloff, to celebrate the rolling of the millionth pood (about 15,873 tons) of rails, which was honoured by the presence of the Grand Duke Constantine, the Minister of Ways of Communication, the Assistant Finance Minister, as well as others of distinction who assisted at the interesting ceremony. They afterwards visited the works in detail, and trials were made of the comparative excellence of English, Belgian, and Russian rails, in which, of course, the latter were victorious.

The Obouchoff Works, at Alexandroffsky, near St. Petersburg, in connection with the Ministry of Marine, established for the manufacture of cast-steel and ordnance, has also made experiments as to the comparative merits of their steel rails, Vicker's, Krupp's, and the Bochum Company's. The trial of these rails is stated to have been effected by means of Kirkaldy's hydraulic testing apparatus. One thousand rails of this description had been supplied by the Obouchoff Works to the Moscow-Nijegorod Railway on trial. The experiments showed the following results:—Obouchoff's rail withstood a pressure of 58 tons, another of the same 65¼ tons, with a decrease in diameter of 6·3. The loss of elasticity commenced at 40 tons. In comparing these results with those obtained on the trial of Krupp's rail, it was proved that the Russian rail withstood the greater pressure by 3¼ tons. The rail of the Bochum Company proved to be very hard, and withstood 46 tons, with a decrease in diameter of 0·9 inches. Vicker's rail bent 10½ inches, and broke at a pressure of 64 tons.

Armour-plate rolling is conducted at the Kolpino Works, 17 versts from St. Petersburg, on the Nicolai Railway; this establishment is also connected with the Ministry of Marine. The construction of iron-clads has been entrusted by the Russian Government, under contract, to Mr. Mitchell, at a Government establishment on the Galernoi Island, at St. Petersburg, and to Messrs. Carr and Macpherson, of the same town. All vessels constructed in the capital are fitted and completed at Cronstadt. In 1864 Russia possessed, or was building, 16 iron-clads, two of which were frigates, three floating batteries, and the rest small turret ships. The number of guns carried was 121, and the horse-power upwards of 4800. The frigates are built of wood, with 4½-inch iron armour, and carrying 8-inch rifled guns. The turret boats are defended by a similar thickness of iron, some of them being double-turretted monitors, carrying one 15-inch smooth bore, and 19 inch rifled gun. The 1-inch armour-plates for the monitors are arranged on the American system of lamination, and attain a thickness of 5 inches for the hulls, which are only 14 inches out of the water. The whole of the iron-clad fleet in Russia has been constructed in the country, with the exception of a single battery. The frigate Kniaz Pojarsky, recently completed, represents that class of vessel in the Russian navy. She was built and designed by Mr. Mitchell, on the ram principle; length, 265 ft.; width of beam, 49 ft. Her armour consists of 4½-inch plates down to the water-line, decreasing gradually to stem and stern to 3 inches. Behind this comes an 8-inch teak backing, placed in the direction of the ribs, between angle iron, forming, as it were, the outward projections of the ribs. This backing, and the outward projections of the angle-iron, are fastened to the second inside 1-inch armour, or skin, which in its turn is placed into another 9-inch teak backing, fixed horizontally; all this is finally secured to the outermost ⅝ inch armour, so that the whole thickness of the sides is equal to 23¼ inches. This frigate carries ten guns of large calibre. The displacement is equal to 4137 tons, and draws 16 feet 4 inches forward, and 20 feet 8 inches aft. Her engines were constructed by the firm of Messrs. Baird, of St. Petersburg, and are of 600 nominal horse-power. Her cost amounted to 1,294,240 roubles (about 172,565*l.*), without armament and fitting. The following vessels were launched last autumn:—Admiral Greig, Admiral Lazareff, Admiral Spiridoff, and Admiral Tchichakoff, frigates; and double-turreted monitors, Tcherodeika and Roussalka.

The building of passenger steamers and tugs on the Neva is limited principally to three firms—Messrs. Baird, Messrs. Carr and Macpherson, and Messrs. Semiannikoff and Poletika, who have to compete with Clyde built, Belgian, and Swedish steamers. There are several establishments on the Volga for the construction and repair of river steamers. The locomotive department in Russia, and railway carriage building, are as yet almost unrepresented. The Russian Government is at present, it is said, establishing locomotive works at Toula, and is offering every inducement to private enterprise for such undertakings. At present locomotives for the new lines are supplied by Borsig, of Berlin; Siegel, of Vienna; and Messrs. Schneider and Co., of Creuzot, in France. As an exception, may be taken the locomotives supplied by the contractors of the Nicolai Railway, Messrs. Wynans Brothers, who construct engines at the Government establishment at Alexandroffsky, near St. Petersburg, at a cost to the Government of about 25,000 rs. each (about 3340*l.*) This firm imports all the chief materials from England, such as boiler-plates, tubes, BB Staffordshire and Lowmoor iron, axles, tyres, &c.; the latter from Krupp in some instances. Messrs. Wynans Brothers also construct all the carriages for the Nicolai Railway, on the American principle.—*Stoke Newington.* JAMES RUSHFORTH.

MR. N. ENNOR'S REMARKS ON THE VIBRATION OF DISTINCT PORTIONS OF THE EARTH.

SIR,—I notice almost daily that shocks, or vibrations, of the earth are felt in nearly every portion of the globe, and many people are becoming alarmed as to the result. This causes me to ask if some learned philosopher or professional geologist will kindly give the public their views of the cause of it, and its effect? The Astronomer is ever ready to explain the beautiful laws of the celestial orbs, and the would-be Geologist is volunteering a thousand explanations how the stratifications of the earth were formed, how shells and other fossils became embedded in them, or when they were placed there, and the age of the world; but I have not seen that anyone has given a lucid account, or probable theory, of how these frequent vibrations occur at the earth's surface, or what caused them.

I think most men are bound to admit they are only freaks of Nature, but worked out by Nature's own beautiful laws; also that portions of the earth do vibrate for a few miles around—say, from one to a hundred,—and some men say a rumbling noise is heard at the same time that a motion is felt; but, for myself, I am not so thoroughly satisfied as to the noise, as it is not generally heard, but only by a few of those who feel the motion. If it were much of a rumbling noise, such an unusual thing would attract everyone's attention, but I have yet to learn that it is heard generally.

I am sure your readers will be as anxious as I am to get our learned philosophers and professional geologists to tell us how and what can cause a portion of the earth to rock or vibrate—say, for 20 miles or any other distance around—and not the other portions of the earth; or, for example, if they were to insert 50 pins up to the head into an orange, how a single pin can vibrate without the orange and the remaining 49. And as the motion is felt at times in very small portions of the earth, and there is never a movement without a cause, this problem should be solved, if only to allay the fears of the timid; but it appears to mystify the before-named philosophers and would-be geologists. Nearly all those I come in contact with attempt to fall back on the old heathen philosophy, and argue that the earth was and still is a melting mass of fire, a few miles in depth from its surface, and that Mount Etna, Mount Vesuvius, and all burning mountains are only the discharges of surplus matter. I have not yet learn that even at the time of these terrific outpourings the vibration is much, for people reside as near them as possible.

I may call attention to the shocks reported to have been felt lately at Weston-super-Mare and in different parts of England and Wales, noticing that these places are deeply mined and so explored as to convince any sane man that no internal fire is near to cause these vibrations, and I cannot refrain from remarking that not one of these recent shocks has produced a burning mountain, but it is quite possible that Etna, Vesuvius, or any other known burning mountain might be so burnt out under as to cause them to break up in some fresh place, even miles from the original, and the old one might cease to burn; but, for my part, I contend that burning mountains and what I term dry vibrations, by some called shocks, such as are felt in England and elsewhere, are two distinct things, produced by distinct causes. I do not attempt to argue that these vibrations do not take place, as I believe them to be of every day occurrence in different parts of the globe, but that they are not even related to what are termed burning mountains. I may venture to say that I believe the philosopher and geologist have (to use an old phrase) hitherto been at sea when laying down a law as to the cause of these vibrations: if they had solved the problem of how one pin in the orange could vibrate without the orange, they would have shown us that they had a base to go on.

In my next I will give my theory of the cause of these so-called shocks, or earthquakes, and as I have travelled more miles in the earth than any man now living, and all in practical work, ever watching Nature's laws, I think I may claim to be no novice. N. ENNOR.

THE STANNARIES LAW AMENDMENT—No. IV.

SIR,—In this my concluding letter I have to make a few remarks upon mining leases, their royalties, and their cost.

As mining leases are most important documents, so too much care cannot be bestowed upon their preparation, in order to make them practicably applicable to the nature of the mineral ground to be demised, to the character of the workings to be carried out, and to the specialities which the terms agreed upon between lord and adventurer require to be expressed. And yet, strange to state, most district leases are so alike as to be almost counterparts of one another. The same precedent is followed year after year, and generation after generation, without a perceptible change either as to form or substance. When a new lease is required an old draft is furbished up and copied, and little more than the names of the parties and parcels having been altered, it is forwarded to the adventurers, accompanied with a polite intimation that it cannot be materially varied. The consequence is that although from time to time mines have become deeper, and new special mining conditions have arisen, yet the same old forms of lease are adhered to, couched in the same uncouth phraseology, omitting many desirable stipulations, and containing a number of useless and irritating covenants, applicable, no doubt, to mining during the middle ages, but utterly unsuitable to the wants and exigences of a first-rate modern adventure.

But I pass by matters of form, in order to notice a few of the substantial defects of the mineral leases of the present day. The chief of these defects is, perhaps, the length of the term, usually 21 years—a term much too short. The shortest term for a mineral lease, to be just between lord and adventurer, should be 30 years, but not one day less; and my advice to adventurers is not to accept a lease for a shorter term. When mines were shallow, and not much engine work or machinery required, little or no length of time was required to test a piece of ground: but now, when the first shaft is usually 100 fathoms deep, sunk in a watery bal, through hard stuff, and with a heavy cross-cut, to a lode that has changed its underlie, and gone nobody knows whither, in such cases—and they are the majority now—a term of 21 years is not only too short, but unjust to the adventurer, and a term of 30 years is the only one an adventurer ought to accept. This suggestion is not an attempt at innovation, for the Legislature has recognised a term of 30 years to be reasonable in many instances; for instance, it allows a tenant for life to demise virgin ground for 30 years. Again, the Ecclesiastical Commissioners have a statutory power to grant mining leases for 30 years; and there are several other cases in which the Legislature has conceded that term. This being so, then I ask why is it that Cornish, including Duchy leases still adhere to the unjust 21-years system? To this question no reply can be given, except the absurd one that it is the time-honoured limit, and cannot be departed from. Again, if a speculator wishes to take a piece of land for the purpose of building on it, the term he usually gets is a 99-years lease, at a very moderate ground rent; but if the same builder, in excavating his foundation should cut a lode, his landlord would not grant him a lease to work it, except for 21 years only, and at a royalty of 1-18th of the net proceeds, whether or not profits be received by the speculator. And yet, as house building is a safer and less hazardous speculation than is mining, it is difficult to account for more onerous terms being exacted in the latter than in the former case. My experience is that seven years, or about one-third of the 21-years term, is now-a-days expended in sinking and driving mere exploration works, at a frightful expense, and that should a rich lode be ultimately cut the delight it produces for the moment is effectually damped by the reflection that the remainder of the term is not sufficiently long to yield more than legal interest upon the capital, after deducting past and current working expences, and that the rich lode has merely transmuted the adventurer's loss into a mis-gain. But, then, it may be answered that a renewal can always be had for the asking. Probably so; but upon what terms? The Phœnix scandal of 10 years ago suggests the probability that the terms asked would be 1-18th standard royalty, and 25 per cent. of the remaining profits. What has happened once may happen again, and therefore it is that no prudent capitalist should trust to the tender mercy of a mercenary lord, having a near prospect of enjoying the entire and absolute reversion of a rich mine, although established, as in the case of the Phœnix, by an outlay of 18,000*l.*, without return. If the Phœnix lease had been for 30 years, the iniquity that was transacted could not have been accomplished, honest adventurers could not have been so mercilessly despoiled, and mining enterprise could not have been so shocked.

As to royalties. It has been conclusively shown by Sir Henry De la Beche that the lords' dues, at the then usual rate of 1-21, were equal to 25 per cent. of the whole profits of an ordinarily successful adventure. But now, in the days of deep mining and high wages, the royalty has been screwed up to the usurious 1-18th, an amount which leaves to the adventurer but a very remote chance of ever getting his capital back again in the shape of profits, and without a hope of being paid for his risks. In justice, therefore, to the adventurer, and as an inducement to the extension of mining enterprise in Cornwall, present royalties ought to be readjusted, and fixed as follows:—In well placed, very kindly, and first-rate setts, 1-21; in all other setts except first-rate ones, 1-25th. Not a fraction more.

It must be confessed that there are some mineral estates in Cornwall that have been made entirely through liberality to the adventurer, and amongst these may be mentioned the far-famed Basset grounds. But it must also be confessed that there are other estates the minerals of which lie unheeded entirely, because the length of term is too short, because the royalty is ruinously high, and because a renewal cannot be applied for without the fear of a repetition of the Phœnix catastrophe.

It is a rule, well acknowledged amongst commercial men, that where one person gives an order which another has to pay for, the latter is generally victimised, and such rule holds good as to mineral leases, for the lord orders, and the adventurer pays, and is victimised. The cost of a mineral lease is often nearer 40*l.* than under that sum, a charge which, in the great majority of cases, is entirely unjustifiable. Professional profit is a delicate subject to touch upon, but as it is a point that directly concerns mining enterprise it cannot be passed over in silence. No mining lease should cost more than 15*l.* or 20*l.*, exclusive of stamps, and the lords should take care that their adventurers are not compelled to pay more than the latter sum; 20*l.* is an outside price, and would pay the professional man well, and all beyond that sum is exaction. Besides, so long as the present system of uniform leases prevails there exists no reason why they should not be printed, and issued at a merely nominal charge. The renewals, too, should be equally reasonable in cost. From one point

view such high prices may be regarded as advantageous to lords, and not altogether disadvantageous to adventurers, for the inducement of having a new lease or a renewal to prepare wonderfully facilitates an agreement as to the terms upon which such lease or renewal will be granted. This is a point which although it, perhaps, affects lords more than it does adventurers, yet it undoubtedly has a direct and pernicious influence upon mining enterprise generally.

Can it be wondered, then, why Cornish mining does not prosper? Certainly not, when we find it crippled with short terms, high royalties, high wages, expensive machinery, costly materials, and the "last shilling and last acre system." These are the drawbacks to mining enterprise in Cornwall, these are the impediments which have diverted outside capital to Shropshire, Derbyshire, Wales, and other districts where a more liberal and commercial spirit prevails. No doubt the mineral riches of the Duchy will always ensure a certain number of bal-seekers, but until radical reforms are introduced they mostly will be needy and practised speculators, and not monied and energetic adventurers, whose desires are mine profits, and not market differences.

The practical results deducible from the above observations are—

1.—That the length of term of mining leases and of renewals should be 30 years at the least.
2.—That the royalty reserved should for first-rate setts be 1-21, and for all other setts 1-25th, and not more.
3.—That neither fines nor increased royalties should be exacted on renewals, until all the *claims* of the adventurers have been *fully* and *most liberally* considered, by reference to two arbitrators, or an umpire.
4.—That the professional charges for a mining lease or renewal should not at most exceed 20*l.*, exclusive of stamps.

Although I could wish to make more suggestions, affecting as well the Stannaries Law amendment as the furtherance of mining enterprise in the Duchy, yet I must refrain, lest by so doing I make more enemies than I gain friends. But whatever may be the result of my letters, nothing has been expressed in malice, but all has been actuated by a sincere desire to promote legitimate mining adventure, not only in the Duchy but elsewhere.—*Feb.* 8. T. T.

ECONOMY OF FUEL IN SMELTING.

SIR,—I am of opinion that in order to the economy of fuel in smelting iron more is required than capacity of furnace to bring the quantity *necessary* to a minimum. I refer to the waste in the coking process as generally prevalent in carbon and useful gas. Could a furnace not be constructed combining coke ovens, and thereby enable the ironmasters to utilise all products of the fuel? It is too apparent to require any proof, the immense waste in fuel and gas in coke ovens, and particularly in blast-furnaces, where raw coal is used. In the latter case I am within the truth when I say the loss is more than 50 per cent. To be satisfied that this loss is daily going on, you have only to look at the condition of the coal a few minutes after it has been thrown into the furnace, and you will find a large portion of it reduced to useless ashes. I draw attention to this important matter in the hope that some one of experience in blast-furnace operations may devise a form of furnace whereby so immense a loss of fuel could be avoided.—*Feb.* 9. R. S. T.

THE IRONSTONE MINES IN CLEVELAND—No. I.

SIR,—The bed of argillaceous ironstone first worked at the Eston Mines has been worked now for several years in the neighbourhood of Brotton and Saltburn. Mr. J. W. Pease's mines, at Lofthouse, produce about 1000 tons of ironstone per day; Bell Brothers' mines, at Cliff and Skelton, produce about 750 tons per day; Mr. Morrison's mines, at Brotton, which work night and day, produce about 1000 tons per day; the Upleatham Mines, belonging to Messrs. Pease, produce about 1200 tons per day; and the Hobhill Mines (Mr. J. W. Pease's) produce about 900 tons per day.

The same bed has been sunk to at Craghall Pit, near Brotton, by Messrs. Vaughan and Robson, formerly Messrs. Brogden and Robson, and an excellent seam of ironstone is now being worked, uniform in quality and thickness, being 8½ feet thick. The following is a section of the strata sunk through in the pit, which is in the Upper Colite formation. The pit was commenced in August, 1867:—

	Yds.	ft.	in.	Yds.	ft.	in.
1.—Strong brown clay	2	2	0			
2.—Sand, with gravel	0	1	0			
3.—Strong blue clay	12	0	0			
4.—Sand, with a little water	0	1	0			
5.—Strong blue clay	6	2	0	=22	0	0
6.—Soft shale	8	0	0			
7.—Alum shale	26	0	0			
8.—Jet rock or hard shale, containing pieces of jet, from ¼ in. to 2 in. thick, found in balls	17	1	0			
9.—Soft shale	1	0	6	=52	1	6
10.—Dogger or bally ironstone, with water, at first 350 gallons per minute	0	0	6			
11.—Sulphur or soft parting	0	0	2			
12.—The bed of ironstone got October, 1868	2	2	6	= 3	0	2
13.—Inferior ironstone	1	1	0			
14.—Ironstone, good	0	1	8			
15.—Strong shale	1	0	0	= 2	2	8
Total				80	1	4

The upper 54 yards of the pit was sunk in about three months, with a small portable-engine, without any water to hinder the sinking; a bore-hole was then put down to the ironstone, which tapped the water lodged in the fissures upon and in the bed of the ironstone. As this water rose in the bore-hole it had to be encountered as the sinking proceeded. A small horizontal-engine, of two 9-in. cylinders, was put up. This, at first, drew the water by tubs, but pumps were afterwards found necessary to be used to overcome the flow of water. This engine not being equal to the work, another engine, with a single 14-in. horizontal cylinder, was erected to work to the same pumps, which were 12 in. in diameter. The motion from the engine to the pump-rods was reduced in the proportion of 4 to 1; and as the pump-rods were required to go sometimes 18 strokes per minute, when the full pressure of the water springs was obtained, the engine would then go at the rate of 72 strokes per minute. After a good many mishaps and difficulties the ironstone was reached at the depth of 77 yards, in October, 1868. In sinking with the pumps they were suspended by two 5-in. wire-ropes from the bottom of the set, and attached to two rods, having each a screw, which worked through a bunton placed over the pit. These screws raised or lowered the pumps as required. The weight of the pumps was greatly taken off the screws by means of sledges, with weights on them, and wire-ropes passing over two pulleys, and connected to the other wire-ropes from the screws, a little below the top of the pit. The springs of water have now decreased considerably, not being more than 150 gallons per minute. The wet season is not found to affect the influx of water in the least, the covering of clay preventing filtration of water to the strata below.

The Craghall Ironstone Company have obtained on lease above 400 acres of ground; they intend soon to sink another pit, so as to develope more fully their extensive properties. At present the places in the bed of ironstone are driven 8 feet wide, but after being sufficiently far away from the shaft the bords will be driven 4 yards wide, and the walls or holings between the bords will be 3 yards wide; the pillars left will be 20 yards by 12 yards, or more, as circumstances require. These first workings are driven to the boundary, or some determinate line, and the pillars may then be worked out towards the shaft. The ironstone is here all obtained by drilling holes and blasting with gunpowder. Advantage is taken of the backs in the stone, which run in various directions, and have different inclinations, to obtain the full effect of the explosion. The mode of blasting the ironstone is first to drill the holes 2 ft. or more in length, by jumpers. It will take six or more of these holes in the face of a 4-yard place. The powder is thrown into the hole by a measure or tot; five of these tots will make 1 lb. of powder, and constitute a strong charge; the powder is pushed to the extremity of the hole by a scraper; a piece of hay or wadding is then put against this; the pricker or needle is then inserted, and the hole stemmed with small stones by the rammer. The pricker is then withdrawn, and a short squib placed in the end of the opening formed by the pricker, this opening being partially closed. The flash from the squib communicating with the powder at the extremity of the drill-hole causes its explosion. Notwithstanding the reckless method of charging the holes with gunpowder, accidents do not often occur. The greatest objection to the use of gunpowder in ironstone mines is the large quantity of smoke created, which must be deleterious to the health of the miners, and also difficult to remove. Gun-cotton, I am informed, has been substituted in the Eston Mines, but as the use of this has been discontinued there is, doubtless, some strong objection to it also. It would be well if some of your scientific readers could so modify gun-cotton as to render it a safe medium for the operations of the miner without impairing its known explosive power.

Feb. 11. C. V.

MANUFACTURE OF STEEL.

SIR,—My character as a Manufacturer of Steel having been frequently impugned in the most unscrupulous manner by various agents and travellers of Sheffield firms, and the steel I produce having been by these too zealous gentlemen stigmatised as "rubbish," I consider it due to myself, as well as to the Titanic Company, whom I represent, to give one proof, out of many, of the fallacy of the interested misrepresentations which have been made in reference to my Steel.

Cheltenham, Feb. 9. ROBERT MUSHET.

[COPY.]

From C. MITCHELL AND CO., Iron Ship Builders, Low Walker, Newcastle-on-Tyne, February 2, 1869.

DEAR SIRS,—Having during the last three months used your "R. MUSHET'S SPECIAL STEEL," for lathe tools and drills for countersinking, we are glad to be able to report that it has given us the greatest satisfaction—in fact, the quantity of work done by the tools from the steel has quite surprised us. Comparing it with "Best Cast Steel," we have found one tool from your "Special Steel" equal to about twenty of any other.

We may state that we have not experienced any difficulty in working the steel to your printed instructions, and are using it entirely for the purposes specified.

We are, dear Sirs, yours faithfully,

(Signed) Pro MITCHELL AND CO. (Thomas Crawford).

Messrs. The Titanic Steel and Iron Company (Limited), Coleford.

MINING BY MACHINERY IN GERMANY.

SIR,—I have just read the article, in the Journal of Jan. 2, referring to the Dœring Engine, and it occurs to me that it may not be devoid of interest to mention that during a recent tour of inspection through the mining district of Germany I heard the Dœring engine spoken of with strong approbation, and surprise as strong that it had not been largely introduced into use in England. I am not myself connected practically with either engineering or mining, and my visit to the German mines was a purely economic one, to ascertain the relative progress of industry in Prussia and England. I must say I fear the North Germans are going to beat us. They are now applying all our best inventions, and adding to them their own technical instruction and skill, while England sticks to routine, and despises knowledge.—*Union Club, Feb.* 8. A TRAVELLER.

MINING IN SPAIN.

IMPORTANT DECREE OF THE PROVISIONAL GOVERNMENT.

SIR,—I have lately seen some articles in the Journal with reference to mining in the above-mentioned country, but without any allusion to the New Law. I resided there, as you are aware, some five years, and visited nearly all the mining districts of any note. There exist many valuable and rich mines in that country. Near Cordova there are copper mines that were worked in the time of the Romans, and still not more than some 40 fms. deep; and some of the richest sulphurets I ever saw came from those mines. There are silver ores near Lorca, in the province of Murcia. Lead is to be found in great quantities about Linares; gold ores near Granada, and also Madrid; and I could enumerate many other rich districts. But before the Provisional Government came into power there existed no guarantee to secure a mine-owner the quiet possession of his property. The laws were such that anybody, without cause or justice, could institute a lawsuit against a mine, and the owner, to avoid being troubled with law matters (which were interminable), often paid large sums of money to be left in peace.

The Provisional Government, very wisely, anxious to give every guarantee and protection to persons wishing to invest capital in mines, annulled the old mining laws, reducing them to one simple and clearly-defined law, by which all Chevaliers d'Industrie are kept completely out of range. The law requires simply the payment of a small sum every year to the Government, and the renewal of that payment yearly; the mine-owner thus secures his property against every contigency or attempt on the part of any person, however high in power, to deprive him of his property. I speak from my own experience. While in Spain I purchased my property thrice in order to be left in peace. For law matters in Spain require all your attention, mental and physical, otherwise, if left in the hands of lawyers, they put off business with their everlasting manana (to-morrow)—procrastination in Spaniards is one of Spain's greatest drawbacks. Under the old laws many companies and individuals were ruined; even those who possessed means had to abandon their properties, for they found their whole time was taken up in simply defending their rights, and the properties were neglected in consequence.

MINING ENGINEER.

MEXICO, AND FREE TRADE.

SIR,—I have little doubt but that you are fully aware what an important step has been taken in rendering the exportation of all classes of minerals or ores free of duty from the Republic of Mexico. This will increase the revenue of the Republic to an enormous extent, and, of course, place the Government in a position to pay their foreign debt. I received by the French mail of to-day the printed Decree published in the official paper of the Government, therefore I can vouch for the truth; and what I forward for publication is a correct translation of the Decree. The Mexican Railway Company will, no doubt, increase their freight traffic by this Decree as soon as the line is finished to Vera Cruz.—*Feb.* 11. MINING ENGINEER.

MEXICO—MINISTRY OF THE TREASURY.

The President of the Republic has forwarded the following Decree:—

BENITO JUAREZ, by the Constitution President of the United States of Mexico, announces that Congress has decreed by a great majority the export of every class of ore free of duty from the Republic.

To Dr. Matias Romero, Minister of the Treasury, Chamber of Congress.

Mexico, Jan. 7.

COMMERCIAL WEALTH OF COLORADO, U.S.

SIR,—I am continuing to receive such evidences from the territory of Colorado of the extraordinary successes during the past year in the raising of stock and growth of wool, that I have thought it would be interesting to many of your readers my writing to you on this subject. It appears that the disease which so cruelly attacked the herds in England and Europe two years ago has, in a somewhat more modified and less fatal form, destroyed during the last summer and fall great numbers of cattle on the plains of Texas, Florida, and the Illinois prairies, while Colorado has escaped unharmed. I would recall attention to the position of the several grazing grounds in these States. In the former, six months of the year the climate is more than tropical, and almost for three months torrid, with sudden and rapid changes in the fall of the year from the intense heat to piercing north-west winds, much rain and cold: the cattle always roaming and exposed to the weather, with no shelter of trees, it can be readily imagined, succumbed in large numbers to such prejudicial influences, the air made more malarious by the large bodies of stagnant water on Texas and the Floridas. The lands lying barely, if anything, above the level of the sea, while on the Colorado range, situated from 5000 to 6000 ft. above the level, with not one drop of stagnant water in the valleys, which are well watered with the clear, pure, running rivers of the Platte, the Colorado, Rio Grande, and a thousand of their tributaries. Well wooded with the pine, and bearing the richest crops of grass in the known world, there exists not one malign influence to operate against the industry of the Colorado ranchman and farmer. So that a wonderful impetus has lately been given to the stock raising of that state, and many of the more southern men are flocking in with their sheep and herds.

The railroad, also, now so near completion (and which will be running throughout the region by Jan, 1, 1870), gives an enormous advantage to the Colorado citizen; so that I do most confidently believe, for young and enterprising men of small capital, honest energy and industry, there is not such another opening on earth for sure and safe investment. While the only one adverse circumstance which could operate injuriously to such occupation has been at last removed by the United States Government, and that is the suppression of the Indian, and confining him within his reserve.

In the mining reports from the State everything is most encouraging. The silver yield shows a steady and uniform increase, and it is now well conceded and proved beyond doubt that the veins are the continuation of the Mexican lodes, and caused by the same upheaval.

R. H. L.

THE RESOURCES OF COLORADO—No. X.

SIR,—There is also another class of persons who should go West—those whose lot in life is such as to be able to wile away a large portion of their time in travel and amusement. Let these happy ones—or rather lucky ones—turn away from contemplating the handy work of art and science in the East, to the glorious pictures fashioned for them by the almighty hand of Nature's God in the Far West. Those, then, who would enjoy a summer trip should ignore the old beaten path of summer resort, with its heat, dust, flies, and fashion. Let them visit the Rocky Mountains when the country is to be seen in all its beauties, the snow gone but off the peaks, and when Nature's panorama and storehouse of curiosities are exhibited, in dazzling splendour and bewildering magnificence. They can drink mineral waters from Nature's pure fountains; have baths, hot or cold, from the same sources. Strawberries and ice cream, from real ice, off the same hill side; with pleasant hotels and halting places on their road; and hunting, fishing, and trapping abounding in every direction. And, again, the luxury of quiet contemplation while gazing on the stupendous and sublime of Nature's rarest beauties. Go where you will the prospect is charming; but all is dwarfed by the indescribable grandeur of the mountains. Volumes have been written on the Alps, but the world has only one such view as is presented from the valley prairie east of Denver. In bewildering sublimity "none but itself can be its parallel." There may be isolated views of the Alps as beautiful as any 20 miles of the Rocky Range, and the icy land of Alaska has its "St. Elias," that towers higher than the highest of them; but from this valley is presented, in one grand view, 200 miles of the Rocky Mountains, until the range is lost in the distance. At times black, threatening clouds hang upon them, adding to the beauty of the scene; while the storm seems spell-bound and held captive, having no deliverance until these clouds are burst and discharged; with the fierce lightning flashing incessantly and harmlessly in its violence. The setting sun, casting evening rays through the passing clouds, and fringing them with its matchless tints; here and there flinging a silver lining around the enraged elements, and breaking out in refulgent splendour on the distant peaks, flashing in almost dazzling brilliancy upon the eternal snows. He whose good fortune it has been to witness this sublime and awful scene of material and moral grandeur must confess that the hand of the Eternal Architect alone could have fashioned out in such perfectedness this wonderful panorama.

The Great Snowy Range is the first to meet the eye, and the observer insensibly wanders along its vast ridged and broken sweep, until it is lost in deep blue vaulted domes on either side. It has no two points alike, and confuses the very conceptions of men in gazing on this colossal masterpiece of the Almighty Architect. Yonder is a mass of peaks, as if made up of inverted icicles; and beside them, it would seem, stupendous snow drifts, with their unique and countless forms, had fallen in. Here is a hillock of spotless white, whose garments change not with the varying and revolving seasons—regular, graceful, rounding with mathematical precision, until it finishes with its tapered cap of snow. There are deep ravines, vast gorges, rude scraggy peaks, and precipices so steep that the eye cannot pierce to their foundations, as if the earthquake had taken the Western World up in its Titanic arms, and frenziedly tossed its mightiest rocks in wild disorder broad cast across the plains.

Thus north and south, and for 200 miles towards the setting sun, extend these vast snow-clad mountains, as far as eye can see and mind conceive—monuments of Omnipotent power, presenting their varied beauties and surpassing grandeur, and the observer turns away only when the last ray of the setting sun receding, and parting with their topmost crowns and the mellow light, takes up the graceful task of displaying, through night's coming shadows, this mute but most impressive tribute an all-wise God has reared unto himself. Further on, at the very head of the great rivers, the Platte, Arkansas, and Colorado, where these mighty streams begin their journey in the eternal snows of the dividing range, flowing, ever flowing on into opposite oceans. Here erects his gigantic crest, overshadowing the picturesque little village of Montgomery, as the Pyramids overshadowed the tents of the Arabs. Here stands Mount Lincoln, the mighty monument of the Almighty, dedicated to our martyred President. Few have been privileged to behold so magnificent a prospect as is seen from its summit. Colorado is spread out at your feet. The South Park, 60 miles long and 30 miles wide, with its undulating hills, green meadows, and a thousand glittering lakes and brooks, dwindles to a pleasure garden. You look over Long's Peak, north, almost into Dakota. You look over the plains of Utah into the west, stretching towards the golden shores of the Pacific. You look over the Spanish Parks, south, into New Mexico; then, turning to the east, the eye wanders backward, over Pike's Peak, where the great plains seem to rise up like an emerald ocean. And such is Colorado's Monument to our dead, but immortal, President, with its base clothed with evergreens, sublime wreaths of *immortels*, such as never hung on the tombstones of emperors, with its capitol reaching so near the heavens as to attain the spotless purity of eternal white—bright emblem of immortality. Let other States and other people raise their monuments of patriotism fashioned by art to gild the fame of the great dead, Colorado points in all time to her proud, monumental mountain. Here, to daunt the traveller, are no swamps; no chills or fevers; no poor houses or paupers; no drenching rains or deep snows; no mud, but plenty of rocks; no old maids, and few young ones; plenty of young America and enterprise; no circuses, but the best collection of natural curiosities in the world; no millionares, but plenty of material to manufacture them out of the raw article; no Bois de Boulogne, or de Cambre, or Hyde-park, but a dozen large ones, where they could be hid away out of sight; no cheese factories, but plenty of milk, and room for them; no woollen factories as yet, but plenty of wool; no world's fair, but the ores that took the first gold premium at the Paris Exposition; no cholera; no yellow or typhoid fever, or other pestilence; and, altogether, not the best or the worst country to live in. If it were the best, everybody would want to live there, and that would make the population too thick. If, with its advantages of climate, and natural wealth, Colorado had occupied the position of Ohio it would have been to-day the first in importance in the Union. It was not to be, and the best portion of our continent was placed far inland, to induce the settlement of that distant country, and open the way for the Pacific Railroad. The hardest part of it is accomplished. Her Alpine summits have been passed and mastered, and the tide of civilisation rolls rapidly on from east to west to people the great unknown wilderness, and where a heaven-high wall of ice and snow-crowned rocks seems to mark a natural boundary and division between two peoples. Silver gates have opened, and the two races will meet in chambers of gold, and in the mountain-hedged alley commingle and spread like a vast inland sea over all the land, while these elevated regions, once considered worthless, will eventually become the seat of empire, as they are the rocky crown of the Continent. Thus the future throne of Columbia shall be of native gold, and the silver sceptre God has given her she shall wield sitting above the clouds. R. H. L.

MINING IN NEVADA.

SIR,—I have read with interest the letter of your San Francisco correspondent, "M. E.," in the Journal of Jan. 30. After several years residence in the mining regions of Nevada (during which time I was, by your courtesy, allowed to expose in your columns several mining swindles emanating from there), I can heartily agree with many of his remarks. There is always plenty of capital on the Pacific Coast, in the hands of men ever ready to employ it, for the development of any mine of promise in Nevada; and the knowledge of this fact makes me look with suspicion on any proposal for the sale of mines coming from thence.

By enquiries which are made of me from time to time, I find that there are even now some companies in London operating in Nevada, and in Alpine county, California. I have no hesitation whatever in saying that not one of them has the remotest chance of ever paying a dividend out of profits. It may be strong language for confiding shareholders to stomach, but true nevertheless.

Whilst, however, concurring with your correspondent in that part of his letter which shows that the Americans are not fools enough to sell *good* properties to English companies, I cannot agree with his ideas about the mineral poverty of the State of Nevada. I am aware that, if we except the White Pine district, there have been as yet but few, if any, paying mines discovered in Nevada, except on the Comstock lode and its immediate vicinity. But what has been done even there?

If my memory serves me, the total dividends paid by all the incorporated (metallic) mining companies in England, Ireland, and Scotland during the year 1868, as published in the Supplement to the *Mining Journal* of Jan. 2, amounted to 396,279*l.* Now, during 1867 one mine alone, the Savage, owning only about 1000 square feet of ground, on the Comstock lode, paid in dividends over 300,000*l.* The same mine has paid nearly as much during 1868, but I have not as yet the figures at hand. The total dividends paid by the mines on the Comstock lode in 1867 were over 600,000*l.*

Surely it is but reasonable to suppose that if this result is obtained from one lode alone, wrought only for a length of about two miles, some good may yet come out of the rest of that State, extending, as it does, over 80,000 square miles. And I do not think, after what I have written, that the poverty of the country need be spoken of.

I may add that my private advices speak in most glowing terms of the White Pine district, which bids fair to eclipse the Comstock.

London, Jan. 9. P.

CHONTALES GOLD AND SILVER MINING COMPANY.

SIR,—The proceedings of the special meeting, reported in last week's Journal, must have elicited the approbation of all who have a real interest in the success of this company. To allow the property to pass away into other hands rather than subscribe something like 7s. 6d. per share was evidently regarded as a step so utterly suicidal as not for one moment to be entertained—a property, it is clear that, owing to previous maladministration, has never been explored, and, therefore, its actual capabilities are as yet unproved.

The practical testimony of Mr. Belt, who certainly is anything but a sanguine man, proves beyond all question that as soon as the mines have been opened out only to a moderate extent remunerative returns will be at once made, and as the mines are of enormous extent, the returns can be increased proportionately with the extent to which the development is carried.

I cannot help endorsing a statement made by Mr. Saxter at the meeting—that the directors had, so to speak, really been too honest as to the manner in which they had submitted the advices received from the mines. Not that I mean to say

the board would in any way be justified in issuing coloured statements, but I do mean to say that by the exercise of a little judicious tact they would not have so readily filled the capacious maws of those ever-rapacious "bruins," who are continually seeking "whom they may devour." For instance, had our board, upon the receipt of each mail, offered us some explanatory statements of the position and prospects of the mines, instead of that hard, formal notice, for which the office has now become characterised, they would have placed the shareholders in possession of much valuable information, and, at the same time, spared the "bears" the trouble of putting their interested interpretation upon the advices as published.

But my only object in troubling you with this communication is to urge my follow-shareholders in the present important juncture in the history of our company to employ their own common sense as to what course they should pursue, and not to be cajoled by the proffered advice so freely offered by that miserable fraternity, whose prey is the carcase of others misfortune. Let each shareholder, for his own interest sake, subscribe his *pro rata* proportion towards the small additional amount of capital required; and thus, by enabling Mr. Belt—in whom we all have confidence—to carry to a successful completion the works he has so well begun and so far advanced, we shall beat the "bears," by securing to ourselves a permanent and highly remunerative enterprise.

A Large Shareholder.

P.S.—Since writing the above, I find that the remittance of gold for the month of December is 534 ozs. (which is a considerable increase, as compared with the last remittance), and that the advices generally are of a very encouraging character.

CHONTALES GOLD AND SILVER MINING COMPANY.

Sir,—I am requested to state that Mr. Thomas Rosewarne has had no instructions whatever from the board of directors of this company to issue the circular which he has sent to the Chontales shareholders.

J. Jameson Truran, Sec.

Gresham House, Old Broad-street, Feb, 12.

ON THE WASTE OF MINERAL AND OTHER NATURAL PRODUCTS.

Sir,—In last week's Journal I observed that at the meeting of the Chontales Company Mr. Belt stated "That his experience of gold mines in different parts of the world had brought him to the conclusion that fine stamps were most unadapted, as much more gold was lost than by coarser stamps; and that as soon as he reached the mine he got an assayer to work, by whom the 'tailings' (!) were being constantly assayed, and the efficiency of the present system of reduction could best be judged from the circumstance that during the past three months the average loss had not exceeded 2 dwts. per ton."

In drawing the attention of your readers to this statement, I wish it to be distinctly understood that I do not for one moment doubt the veracity of Mr. Belt, or the accuracy of his assayer, my object being to point out the great radical defect existing in all systems of amalgamation hitherto in use, which has obliged reduction companies to have recourse to coarse grinding, in order to diminish the loss of float gold in the slimes.

Where gold is found to exist in very minute or invisible particles, as in the Chontales ore, it is obviously impossible to liberate these particles from their earthy matrix without crushing the ore to the same degree of fineness as the particle of gold; consequently, in coarse crushing only that portion of the ore is reduced which is fine enough to yield its gold, while that imprisoned in the coarse grit is necessarily lost.

This loss is easily ascertained by an assay of the tailings, but the much more serious loss of float gold in the slimes is rarely known. From the most reliable information that can be obtained, it appears the average loss from both sources is not less than 50 per cent. of the assay value of the ore.—*Vide* reports of Mr. Arthur Dean, Mr. Pearson Morrison, St. John del Rey Company, &c.

Taking into consideration that the United States of America is now producing 15,000,000*l.* of the precious metals annually, while Australia furnishes nearly 6,000,000*l.* more, it follows that if the present rate of loss can be reduced by 10 per cent. only, the yearly saving of gold and silver in these countries alone will amount to 2,100,000*l.* by the introduction of a system of working that will reduce all the float gold, and, consequently, admit of find grinding.

Having been engaged for the last two or three years on experiments with a view of solving this important problem, which experiments have lately resulted to the entire satisfaction of myself and others interested, I am now having a machine manufactured that will amalgamate from 12 to 15 tons of ore per day of 24 hours, and which will recover the whole of the float as well as heavy gold, capable of amalgamation, however fine (and the finer the better) the ore may have been crushed. When this and other similar machines shall shall have been in working operation for a sufficient time to prove their value, your readers will, doubtless, be informed from other quarters of facts that will, in all probability, enable many of our large gold mining companies to place themselves in a more attractive position with the public.

W. T. Rickard, F.G.S.

Assay Office, 2, Crown Chambers, Threadneedle-street.

DEATH OF CAPT. MATTHEW FRANCIS.

Sir,—The removal of so amiable, able, and useful a man as the late Matthew Francis calls for some notice. He was born on July 16, 1810, and was, therefore, 58 years of age last July, a very vigorous age generally. He was first engaged at Wheal Caroline, in Cornwall. Before he was 21 years of age he filled a situation in the mines of Arod, in Columbia, and subsequently in Venezuela, where he learned Spanish, read much, and practically became a learned geologist; indeed, throughout his life Mr. Francis was a close and reflecting student, but more especially pursued geology and mineralogy as his favourite sciences; he was a fair classical and French scholar. After three years residence in America he returned to England, and opened out the Lisburne, Goginan, and other mines in Cardiganshire. He was a resident in that county the greater part of his life, and the inhabitants ought to be, as we have no doubt they really are, grateful to him for the services which he rendered to them in the development of its mines. To the people of Cardiganshire, old and young, he was well known as a man of genial temper, overflowing benevolence, practical skill, and high theoretical attainment. Of my own knowledge, Mr. Editor, I can say that while our great professors, whose names I need not mention, know nothing of the practical, however learned in theory, Capt. Francis embraced both within his own capacity, so that it might be fearlessly affirmed no man was better informed on every question connected with mining.

A short time since he went to Spain, with the object of ascertaining personally its mineral resources, and as the representative of English gentlemen disposed to supply capital for working them. There he fell a victim to apoplexy, which for some time had endangered his life. A better hearted, kinder man, or one of a more manly, yet unpretending intellect, than Captain Matthew Francis it would be difficult to meet. He was also a good husband and father, a faithful friend, and an intelligent and cheerful companion. Peace to his ashes—honour to his memory. This is the feeling of so many—indeed, of all who knew him—that I desire to see your Journal, not unknown to his pen, give vent to it.

Thomas Spargo.

MINING IN CORNWALL AND DEVON.

Sir,—Much has been said and written of late about the distress in the mining districts of Devon and Cornwall. Twenty years ago mines paid well in several districts, but these mines are exhausted; some of the oldest and most productive copper mines have changed from copper to tin, but deep mines, as a rule, are much more expensive to work than shallow or new mines, and, though strange yet true, copper does not continue to be rich in quality in depth—that is to say, below 300 yards, or 150 fms. below the surface. To re-open old mines is a very hazardous experiment, and the cause of so much money being entirely lost during the last 20 or 30 years.

The landowners are not in many localities liberal enough to encourage new speculations; consequently, they deprive themselves in the end of large revenues, by allowing the enterprise of the day to seek investments and employment abroad, and things, if not met soon, will yearly grow worse. The fault, doubtless, is with those who have the management of the property. As to Cornwall, some persons imagine the county is exhausted of its mineral wealth. Such is not the case; not a tenth part of the county is as yet explored, nor ever will be, unless more liberality is shown to capitalists by those gentlemen who possess mineral property.

No investment, on an average, is safer than mining when cautiously gone into and well managed, and nothing has paid better; but, unfortunately, investors wait until a gale takes place in speculation; they then rush in pell-mell into everything that offers, and all seem to wait for a move in the market ere they invest. Not so formerly; the age has not improved, or, indeed, shown the wisdom of previous years! At no period was there ever a greater chance for investors to make money than at the present time, to embark in well-selected mines. Recent experience, doubtless, has been of some benefit to persons whose eyes had not been previously opened. Nothing has been more depressed than the article of copper, and the consumption must increase. Locality and quality of the mineral has much to do with the profits made out of mines.—*Feb.* 8.

A Reader.

THE GREAT NORTHERN MANGANESE COMPANY.

Sir,—Will you have the kindness to insert in your valuable Journal the following extract of a letter, dated Feb. 9, received from Mr. J. Harris, our manager at the Mynyddndol Works, for the information of our friends and practical miners, readers of your Journal:—

"On Friday last struck mango in the adit, or bottom level, from 9 to 10 yards from the old sump, of best quality blue steel. We are driving nearly north and south. The vein we have intersected, as far as I can judge at present, seems to take its course east and west, if so, I do not doubt but it will be very productive. We have also commenced to open some new ground from the old sump in the same level; we have driven it about 3 yards, and to-day we struck some beautiful mango, quite equal in quality to the above."

In requesting you kindly to insert this letter in your Journal, allow me to say that, after considerable experience, I know few mining companies more likely to be successful, when sufficient capital is brought into the concern, than this, and when the railway to Festiniog is opened it will prove, according to my belief, one of the most valuable properties in North Wales.

Manchester, Feb. 11.

J. K. Williams, Sec.

NORTH TRESKERBY, AND ITS ACCOUNTS.

Sir,—Until I received the last statement of accounts I had been a shareholder in this mine, but as soon as I found that the costs included those incurred up to December only, while the ore sold on Feb. 6 was credited, and that in the face of this peculiar manufacture of a balance-sheet there was a debit balance of no less than just upon 500*l.*, I immediately sold my shares. And now I am out of the fire, I can direct the attention of my late co-partners to the sufficiently significant character of a resolution passed at the meeting on Tuesday—"*That legal proceedings be taken against all shareholders in arrears of call.*" As to the mine itself, it seems evident that the 130 fm. level—the most important point of development—has proved a great failure, and, therefore, shareholders have to feed upon prospects. For what reason, I would ask, is the report not signed by Capt. Tregoning?—*Feb.* 12.

An Ex-Shareholder.

Meetings of Public Companies.

MWYNDY IRON ORE COMPANY.

The seventh annual general meeting of shareholders was held at the offices of Messrs. John Taylor and Sons, Queen-street-place, on Monday, Mr. Capper in the chair.

Mr. N. M. Maxwell (the secretary) read the notice conveniug the meeting.

The directors' report and that of the directing managers (Messrs. John Taylor and Sons), which appeared in last week's Journal, were taken as read. The receipts for the year amounted to 29,999*l.* 7*s.* 9d., and the expenditure to 20,644*l.* 15*s.* 10d., leaving a profit of 9354*l.* 11*s.*, as against 7189*l.* 8*s.* 5d. for the preceding year. Out of the profit, interest upon the mortgage debt, amounting to 959*l.* 17*s.* 11d., has been paid, and the balance of 8394*l.* 14*s.* has been carried to the profit and loss account, increasing the amount to the credit of that account to 8608*l.* 8*s.* 3d.

The Chairman did not think there was anything to be added to the full explanation given in the reports already in the hands of the shareholders, and, therefore, he would content himself by moving that those reports and balance-sheet be received and adopted.—Mr. Fry had much pleasure in seconding the proposition.

A Shareholder wished, before the motion was put to the meeting, to draw attention to what he considered a most material point. The report stated that the profit realised is satisfactory, being about 31 per cent. of the gross receipts, and would be equal to over 5¼ per cent. upon the called-up capital, but the directors consider it advisable to divide only 6000*l.*, leaving the remainder of the year's profits, amounting to 2394*l.*, to be carried forward; and, therefore, he should like to know the cause of the depreciated value of the property in the market—the last quotation being 2¾ to 2¼ discount.

The Chairman said the directors could not be held accountable for the price of the shares, their province being not to work the market but the property, and that to the best advantage for the shareholders.

Mr. Taylor, in reply to a question, stated that the constant object of the directors was to pay off the mortgage debt. The keeping of money in hand now was in order to further discharge that liability, so as to get the property free.

Mr. Howse drew attention to the stable account.—Mr. Taylor explained that the horses, numbering 20, were kept pretty much from the produce of the company's estate; another reason for farming was to avoid trespass, the item for which would, in all probability, amount to a very large sum.

Colonel Stanton said that the average expenditure for seven years was 747*l.*, which seemed a large item if only for feeding the horses.—The Chairman said the item included drivers' wages, and purchase of new horses to replace others.

Mr. Reynolds drew attention to the fact that upon the other side of the balance-sheet there was a credit item of 118*l.* on farm account.—Col. Stanton said he was perfectly satisfied with the explanation, adding that he had entire confidence in the Chairman and directors.

The motion adopting the report and balance-sheet was put and carried unanimously. Captain Pelly and Mr. Reynolds, the retiring directors, were re-elected. Mr. Scott, public accountant, a retiring auditor, was re-appointed.

Upon the proposition of Col. Stanton, seconded by Mr. Howse, a unanimous vote of thanks was passed to the Chairman and directors for the satisfactory way in which they continued to conduct the company's operations.—The Chairman having acknowledged the vote, the proceedings terminated.

MID-WALES LEAD MINING COMPANY.

A special general meeting of shareholders was held at the offices of the company, Nicholas-lane, on Wednesday, for the purpose of adding to the Articles of Association the following resolution:—

"That the directors shall be at liberty to dispose of that portion of the mineral grant belonging to this company, and called or known by the name of Altifus, by selling the same to a company formed, or to be formed, for working the same, for the sum of 1500*l.*, in paid-up shares of such company, and at or subject to a yearly rental of 50*l.* per annum, to be paid by such company."

In the absence of Mr. J. Taylor, Mayor of Dudley (the chairman of the company), Mr. Nightingale was voted to the chair.

Mr. Davey (the secretary) read the notice convening the meeting.

The Chairman said the present meeting had been convened in pursuance of the opinions expressed by the shareholders a short time since, when, after explanations from the Chairman, and also from the manager (Capt. John Kitto), the unanimous feeling seemed to be that, having in view the fact that the property possessed was of considerable extent, it was desirable to dispose of that portion of it known as the Altifus Mine. To develope the Cwm Fron portion in any way effectually would certainly occupy the company a longer period than was likely to be within the lifetime of any of the present shareholders, and, therefore, unless they were prepared to provide sufficient capital to work both Altifus and Cwm Fron, it certainly appeared unadvisable to continue to incur a certain monthly expenditure at the former, which they were compelled to incur under the covenants of the lease, and the more especially as by the proposition now submitted not only could that saving be effected, but such an arrangement it seemed likely could be made as to continue the present shareholders' interest in the success of the mine, and at the same time receive a small amount of dead rental.

The Secretary informed the meeting that a shareholder, holding 10 shares, had written to the effect that he dissented from the proposition, and desired his protest to be entered on the minutes.

Mr. Ross mentioned that the proposition was entirely in accordance with the views of the manager (Capt. Kitto), who, as stated by the Chairman, urged its desirability, giving it as his unequivocal opinion that the wise policy of the company was to concentrate the whole of their attention upon the successful development of Cwm Fron.—Mr. Earle said that, as by the proposition the present shareholders would retain an interest in the Altifus Mine, so far from any objection being raised, it should at once meet with the approval of the meeting.

Mr. Ross said the shares to be accepted as the purchase-money of the mine would be fully paid-up, and allotted *pro rata* to the shareholders in the Mid-Wales Company.—Mr. Kernwick asked if another company had been formed?

The Chairman said he did not think any company had yet been formed, but he believed there were several parties who were anxious to take up the property.

Mr. Carlisle thought that was some reason why the shareholders should retain an interest in it.—The Chairman, in reply to a question, stated that Cwm Fron was improving at almost every point. Every operation was progressing most favourably. Another parcel of ore, of 20 tons, would be sampled in a few days.

Mr. Carlisle expressed his satisfaction with the way in which the mine was being developed, and also with its general prospects. He hoped that the works would be conducted with the utmost economy.

Mr. Kerby (the company's solicitor), having replied to several enquiries as to the legal bearing of the proposition, it was agreed, after some discussion, to adjourn the meeting to Feb. 26, when it was hoped Mr. Job Taylor and Captain Kitto would be present, to afford any further information the shareholders might desire.

A vote of thanks to the Chairman and directors concluded the proceedings.

CALDBECK FELLS (CONSOLIDATED) LEAD AND COPPER MINING COMPANY.

The annual general meeting of shareholders is to be held at Carlisle on Feb. 17.

The directors' report, to be submitted, states that, having in view the improved position of the company and the natural desire of the proprietors to know their true position, the directors have had the accounts prepared in such a manner as to afford all the information that can be required in as simple a form as possible. With this object, it has been thought desirable to capitalise the expenditure to the date of the last balance-sheet issued, and to show by a statement of profit and loss the clear result of the working. The sum of 1067*l.* 2*s.* 3d. has been charged for additions of a permanent character. This amount includes 160*l.* engineer's charges for preparing plans, and superintending the erection of the pumping-engine, which is now completed with the exception of the pitwork. Although the directors cannot on this occasion have the gratification of meeting the shareholders to propose a dividend, yet they refer with some satisfaction to the statement of profit and loss, by which it is shown that 852*l.* 18*s.* 3d. only is the total deficiency on the working of the mine during the past fifteen months; this sum, though doubtless serious in itself, is yet so small in comparison with the amounts included in the statements previously issued, that the directors allude to it as indicating a steady improvement in results. An arrangement was entered into in May with the lessors for the payment of their royalty in cash. The amount charged in the accounts does not, therefore, represent the full dues upon the ore sold for the whole period which the present statement includes. Since the date referred to the sales of ore reported have included the royalty, and will continue to do so. The directors are, as a measure of economy, gradually providing the company with their own horses and carts. It has been proved by a few months' experience that this change from hiring will result in a considerable saving. In their last report the directors advised that the western part of the mine should be pushed on with energy, and that a shaft should be sunk through the rich body of galena and copper on the north lode by a shaft through the heart of the ore, so as to prove the mine in depth, say 40 fathoms below the present level. This has been carried out with complete success to the depth of 6 fms., and so satisfied are the directors that the mine improves in depth that they have thought it right for the interest of the shareholders to call in Capt. Hawke, an experienced mining agent, to examine and report on the present state of the mine and its future prospects, as well as to advise how the mine should be worked in future. From his able report the directors are pleased to find he takes the same view as themselves, and in that report most carefully points out what he considers the best means and plan of working the mine. In those views the directors entirely agree, and hope the shareholders will also approve and authorise the directors at once to adopt the plan suggested, inasmuch as they feel confident that it is only from depth that prosperity can be obtained, and that Captain Hawke has pointed out the cheapest and quickest manner of obtaining it.

The report of Capt. Philip Hawke (manager of the Champion Lead Mines, Creetown, Scotland), referring to Roughtengill, says he notes with unusual interest that at the bottom of the 90 fm. level, for 100 fathoms in length, to the most remote part of the driving west to be productive ground. Capt. Hawke is of opinion that depth is most essential in this mine, and, if it is attained, he is fully convinced the results hitherto anticipated will be abundantly realised. As to Crown Point East, Capt. Hawkes says that he observes east in the 50 not only a large masterly lode, but one containing ingredients that compose a gigantic mass of mineralised matter. He has, therefore, no hesitation in stating his conviction that when the profitable parts of it are discovered at a deeper point in this part of the mine as well, it will produce mineral in abundance, and lead to results of no ordinary character and importance. Depth in this part of the mine is absolutely essential, and he cannot, therefore, but advise the further sinking of the engine-shaft, which he recommends to be done without delay. He has no hesitation in stating that this is a property of very great value, and were it situated in Devon or Cornwall, in a proved mining district, it would be difficult to over-rate its value as a great mining property. He is convinced that if the Caldbeck Fells Mine is properly opened out (and he has offered his views as to the present best means of doing so), and the operations carried on by practical men on such a scale, and with such system and economy as would be adopted if such a property were in the mining districts of Devon and Cornwall, a very valuable mine will assuredly and speedily be realised. The whole adventure, notwithstanding the mistakes which have already been made, and the outlay, no doubt, in many parts hitherto ineffectually expended, is full of promise, and the most sanguine expectations of ultimate and speedy success may be fully entertained. His belief is that an immense deposit of lead and copper ores will be laid open in this mine, and may not be far off the present workings, as certainly, if the best mineral indications can guide them, a great deposit exists at a greater depth. He considers the important working parts of the mine are now only commencing in the 90; and he must say that not to carry forward such an adventure with energy, now that so much heavy work has been completed, with machinery and plant ready, would be a reproach upon all mining adventure. Referring to Drygill and Carrock Side, which immediately adjoins on the west the celebrated Old Caldbeck Fells mining properties, Captain Hawke says that it presents a character almost unique. He is strongly of opinion that the two main lodes in Drygill and Carrock are a continuation of the north and south lodes from the Caldbeck Mine into this property; in fact, the size, outcrop, &c., on the back of the distinct veins at surface are truly identical. Captain Hawke concludes by remarking that it is his opinion, after visiting the Drygill and Carrock Side mining properties, basing his judgment upon its geological position, the masterly lodes traversing the sett, and their highly mineralised character, the quantity of ore already raised at the present shallow workings, the indications of extensive workings at Drygill west, east as well on the Carrock Side, the locality round, on the backs of the lodes, and the richness of the ore raised by the ancients, in close proximity with this highly mineralised property, that a moderate outlay and judicious management are all that are requisite to make it a most valuable property.

STANNARIES LAW AMENDMENT.

The County Committee met at the Royal Hotel, Truro, on Tuesday, to consider the Draft Bill as revised and amended at their recent meeting, together with alterations and observations from Mr. Reilly, conveyancing counsel. There were present—Mr. T. S. Bolitho in the chair; Viscount Falmouth; Sir W. Williams, Bart.; Mr. J. St. Aubyn, M.P.; Messrs. Arthur Willyams, S. H. James, F. Hill, Marrack, Boyns, Bolitho, jun., Pike, R. R. Michell, Higgs, Williams, Vivian, Henry Rogers, John Haye, Bickford, Downing, T. Cornish, and Capt. Teague. Letters were read from Mr. Bridges Willyams; Mr. Kekewich, M.P.,; Mr. W. Michell, Registrar of the Stannary Court; Mr. Charles Fox; Mr. Richard Taylor; Mr. Pendarves Vivian, M.P.; Mr. J. H. Murchison; Mr. Christopher Childs; Mr. P. P. Smith; Sir R. R. Vyvyan, Bart.; Mr. Henry Grylls; and W. Polkinghorne. A letter was also received, written on behalf of Mr. Magniac, M.P., disabled by his recent accident.

Mr. Brydges Willyams suggested the incorporation of a clause giving power to shareholders under certain restrictions to compel their purser to prepare and produce balance-sheets at mine meetings.

Mr. Kekewich thought the Draft Bill contained important provisions that might well be extended beyond the laws of the Stannaries.

Mr. Richard Taylor had not received a copy of the Draft Bill, but from what he had seen in the papers he was led to conclude that his opinions on the amendment of the Stannary Law did not accord with those entertained by the Committee, and consequently he could not usefully co-operate with them in carrying out the measures on which they had decided.

Mr. Pendarves Vivian stated that his brother desired him to say he would be happy to render any assistance in his power when the Bill should come before Parliament.

Mr. J. H. Murchison considered the Bill, as a whole, objectionable. He had not seen nor heard of any attempt to justify a different law for the mining companies of Devon and Cornwall, and those for doing the same in other parts of the kingdom; and he had yet to be convinced of the necessity for a difference in the laws relating to mines and those for other descriptions of property.

Mr. Christopher Childs still retained serious objections to the 26th section, giving power to sell a mine, with its sett, machinery, and materials, as a going concern.

Mr. P. P. Smith had carefully gone through the Bill, and thought it was certainly improved by the alterations and amendments made by the Committee.

Sir R. R. Vyvyan, with reference to the priority given by the 28th clause to agents, clerks, miners, labourers, and others employed wholly or in part in or about a mine, in respect of their salaries or wages or other earnings in relation to the mine, said he would not limit to three months' wages the priority to the working "miner," but would give him an absolute priority. Per contra, he doubted whether the word "agents" ought not to be struck out. The purser himself was an agent, and on winding-up he might appear not deserving of any such favour. Would it not be better to divide the 28th clause into two distinct clauses, giving absolute priority without limit of time to the working miner as to all debts due to him, whilst in the subsequent clause there might be three months' limited priority to clerks and subordinate agents without any such vague term as "others." Pursers and managers of mines would have been rightly dealt with according to the first draft; but they would have so much in their power as the Bill now stands that they ought not to have other privileges than those of ordinary creditors.

Mr. Henry Grylls, with reference to the expenses of obtaining this Act, it appeared to him very anomalous that a court of equity receiving salaries for its officers, and all its expenses from contributions from mines, should go on year after year without accounting for the moneys received. It was not probable that miners would submit to any additional expenses until it was shown how their contributions had been disposed of. If on a full statement of income and expenditure it was shown that there was no money rightly in hand, he had no doubt that miners would help to meet the expenses of the new Act, but not otherwise. The officers of the Court were now asking to be relieved of their duties three months out of twelve.

Mr. W. Polkinghorne suggested an alteration in the definition of a cost-book to the following effect:—The term "cost-book" means the principal book of the mine, to be kept by the purser according to the custom of the Stannaries, and in which he enters from time to time, in summary or otherwise, the substance of all other books and papers relating to the business of the mine.

The consideration of the 37 clauses of the Bill occupied the Committee about five hours. Among the more important alterations were the following:—

By Clause 6 a resolution is to be deemed special when it has been passed at a meeting with special notice by the votes of a majority in value of all the shareholders present *in person, or represented by proxy*, and has been confirmed at a meeting with special notice by the votes of a like majority.

Shares may be forfeited on failure to pay calls by resolution of the company, *passed at a meeting of the company with special notice.*

Shares so forfeited shall be carried to an account to be called "The account of forfeited shares," and shall be deemed to be the property of the company, and shall be sold by public auction, and any shareholder may purchase any such share. (By the clause before amendment forfeited shares might be sold by "private contract, or disposed of according to the custom of the Stanneries in case of relinquishment, or otherwise as the company may direct." These quoted words were now struck out, as were also the words by which it was proposed to authorise the *company* to purchase forfeited shares.)

In Clause 25, relating to the purchase of relinquished shares, the purchaser is to be held discharged from all *unpaid calls, interest, and expenses* due to the company in respect thereof, accrued before his purchase.

A long and occasionally very animated discussion took place concerning clause 26, and eventually it was agreed that, without prejudice to the provisions of the setts under which a company hold a mine, the company may, by special resolution, sell a mine and the setts thereof, and the machinery and materials belong-

ng to the company as a going concern, *provided that this clause shall not extend to any mine that has made profit within the previous twelve months.*

By clause 27 a past shareholder is not to be liable to contribute to the company's assets if he has ceased to be a shareholder for a period of two years before the mine has ceased to carry on business, or before the filing of the petition for winding-up.

Clause 29, as amended, saves all customs, rights, remedies, or privileges of any creditor or other person, legal or equitable, now existing, except as altered by this Act. And the rights, remedies, and privileges given by this Act shall be cumulative.

By clause 37 (to be placed after clause 14) a company shall not be bound to recognise a transfer of a share made for the purpose of getting rid of the further liability of the shareholder, for a nominal or no consideration, or to a person without any apparent pecuniary ability to pay the recurrable expenses of working a mine, or to a person in the menial or domestic service of the transferrer.

Resolutions were passed approving of the Bill as amended, and requesting the county members for Cornwall and South Devon to take charge of the Bill in the House of Commons, while Lord Falmouth was requested to do the like in the House of Lords. It was suggested that the Bill should be endorsed by Mr. J. St. Aubyn and Mr. S. T. Kekewich, and that the borough members connected with the Stannaries be requested to give it their earnest support.

Both Lord Falmouth and Mr. St. Aubyn expressed their readiness to support the Bill to the utmost of their power.

The meeting closed with thanks to Mr. Bolitho for his able conduct in the chair.

It is probable that a county meeting, to receive a report from this Committee, will be held at Redruth on Monday week.—*Western Morning News.*

FOREIGN MINES.

CHONTALES.—J. Tonkin, December: Consuelo and Estrella: No. 1 stope, in the back of No. 2 level, east of No. 2 shaft, has been stoped 12 varas; the lode is 4 feet wide, worth ¾ oz. of gold per ton; in this stope we have had small pillars, worth upwards of 17 ozs. of gold per ton. No. 2 stope, in the back of No. 2 level, east of No. 2 shaft, has been stoped 11 varas; the lode is 4½ feet wide, worth 1 oz. of gold per ton. No. 1 stope, in the back of No. 3 level, east of No. 4 pass, has been stoped 9¼ varas; the lode is 3 feet wide, worth 4 dwts. of gold per ton. No. 2 stope, in the back of No. 3 level, west of No. 2 shaft, has been stoped 19½ varas; the lode is 4 feet wide, worth 4 dwts. of gold per ton. Piper's shaft has been sunk on the lode 14 varas; the lode is 4 feet wide, worth 4 dwts. of gold per ton. No. 2 level, east of No. 2 shaft, has been driven on the course of the lode 12½ varas; the lode is 4 feet wide, worth ¾ oz. of gold per ton. No. 3 level, east of No. 2 shaft, has been driven 2 varas on the course of the lode, which is 3 feet wide, with a little gold, but not sufficient to value; this level is suspended for the time, as No. 4 level will come in much deeper to prove the eastern ground. No. 4 deep adit level has been driven on the course of the lode 5½ varas, which is now poor and disordered. We sent to the mill 680 tons from the mines, which I estimate at 10 dwts. of gold per ton, and 174 tons from the old heap, which I estimate at 3 dwts., in all about 366 ozs. of melted gold. Our mines are still looking favourable for a good supply of quartz in the coming month; also our tramways and mines are in good working condition. The tramming for the month cost $27 per ton, from the mouth of the mines to the stamps, including food for mules.

Santo Domingo.—W. Evans: During this month Gully's winze has been sunk 3½ varas on the lode, which is 5 ft. wide, yielding 7 dwts. of gold per ton. No. 1 level, east of Gully's winze, has been driven 9 varas; lode 3½ feet wide, worth 6 dwts. of gold per ton. No. 1 level, west of Gully's winze, has been driven 8 varas; lode 3¼ ft. wide, worth 9 dwts. of gold per ton. No. 1 stope, in back of No. 3 level east, has been stoped 13½ varas in broken ground, yielding 5 dwts. of gold per ton. No. 2 stope, in back of No. 3 level, has been stoped 13 varas, yielding 6 dwts. of gold per ton. The deep adit has been driven east on the course of Trinidad lode about 4 varas; the lode is at present 5 feet wide, producing a little gold, but not sufficient to value. Trinidad old level has been cleared and secured about 27 varas, and as soon as this level is secured to the end I intend to drive the same on the course of the lode, and stope the back, where we may expect to have some good paying quartz. West San Benito deep adit level has been driven 12 varas; lode 4 feet wide, yielding a little gold, but not enough to value. The West San Benito tramway is completed from the stamps to Trinidad, and we expect to finish it to West San Benito in about three or four weeks. We intend putting a rise in back of San Benito deep adit to prove the value of this piece of ground; I have no doubt we shall find it more valuable as we get nearer the surface. We intend also to make some trials on the back of Trinidad lode, east and west of Santo Domingo creek, as I think something valuable may be obtained there. There are 322 tons of quartz from Santo Domingo, averaging 7 dwts. of gold per ton; and 170 tons of quartz from Trinidad old heap, which averages 3 dwts. of gold per ton, and which I estimate to be about 137 ozs. of gold from the two places.

San Antonio.—J. Andrews, Jan. 5: I beg to hand you my report of the above mine, showing the work done in the past month, together with the present and future prospects. In the past month the deep adit end has been driven west of shaft 6¾ varas; lode varying from 2 to 4 ft. in wide, yielding on an average 2 dwts. to the ton of stuff; lode in the present end 4 ft. wide, yielding 2 dwts. to the ton. The back of the deep adit level, west of shaft, has been stoped 80¾ varas; the lode is from 2 to 3 ft. wide, yielding from 4 to 5 dwts. of gold to the ton of stuff; the lode is now 2 ft. wide, yielding 4 dwts. to the ton. An end has been driven east of shaft 4 fathoms below the intermediate level 10 varas; lode varying from 4 ft. to 15 in. in width, and yielding about 3 dwts. of gold on an average to the ton; the lode in the present end is 15 in. wide, yielding 2 dwts. to the ton. An end has been driven east of winze 20 ft. below No. 2 level 4 varas; lode yielding 2 dwts. to the ton, and suspended, as it will not pay. We have sent to stamps during the month 283 tons of quartz, yielding on an average 4 dwts. of gold to the ton of stuff. I think the present month will take away nearly all the ground we have discovered that will yield 4 dwts. of gold to the ton.

EL CHICO.—J. R. Rule, from Dec. to Jan., 1869: The stoping down of the El Torno shaft is progressing favourably, and the work will soon be completed, after which we shall clear the debris in the bottom, and advance by the lowest level, running eastward in the direction of the great deposit of silver ores in El Torno. We are commencing to get ores in large quantities for our hacienda (reduction works) of San Pascual, having at present about 620 cargas in hand, the largest proportion of which is from the mines of San Buena Ventura and San Eugenio, and these latter are increasing their consignments to us every day. Owing to this very great increase of business, it has become indispensably necessary to have a superintendent resident at the hacienda to conduct the reduction process. I have, therefore, engaged the services of Mr. Bennet Hampshire, and trust that this appointment may be confirmed by the directors.

JAVALI.—The directors have received very full and satisfactory advices by the present mail. The long-desired communication between Pim's tunnel and the Nispero working had been completed, and for the future the ore from that rich working would go direct to the mill. The remittance now made is 523 ozs. of gold in bars and 80¾ ozs. of amalgam. The health of the mine was excellent and labour abundant. It appears that the small turbine, which had been temporarily fitted up to supply the place of the larger one which broke down some months since, has never been able to work more than 15 out of the 20 head of stamps erected, and has not been able to work even this number at much more than half the proper speed. The new large turbine was in course of delivery at the works, and after its erection the quantity of ore crushed was expected to be at least doubled. It appears further from the reports that the whole of the ore which has been lately crushed was hard or poor ore, left by the former owner lying about the surface of the mine, or else the ore taken out in driving the adits. The average from these ores has, nevertheless, reached about ½ oz. to the ton. Now that the rich workings will be drawn upon the yield per ton is expected to be very much greater. Mr. Sohns, the mining engineer in charge of the workings, has written a long and elaborate report on the general aspect and prospects of the mine, in which he states that he is "not aware of the existence of any mine combining so many advantages as the Javali," and he estimates the ore lying above the level of "Salmon's tunnel" to be worth 2*l.* a ton, or 2,250,000 sterling. He points out that no difficulty exists, however, in going deeper, and that by going 250 feet only the quantity of ore would be doubled. This, he states, is exclusive of the silver contained in the ore, which he considers would add 50 per cent. to the estimates. Mr. Sohns also gives a careful estimate of the cost per ton of working and reducing the ores, and he considers the maximum cost to be 11s. sterling per ton. Mr. Sohns' report concludes as follows:—"I have been more than guarded in putting these statements on paper, and feel confident that they are rather below than above the truth, yet they are almost bewildering by their magnitude, and must be highly encouraging to those who have embarked their capital in so sound and promising an undertaking." The lands belonging to the Javali Company exceed 4000 acres, great part of which is covered with the finest timber, the whole forming a compact estate round the mine. Dr. Seemann, in his report, states that the shareholders ought to be made aware of the enormous increase thus made to the value of the property; for, he adds, "the Chontales district will now progress and be the most important part of the Republic of Nicaragua." Dr. Seemann also mentions that "the climate of the district has much improved since a few clearings have been made, and the temperature is now occasionally as low as 50° Fahr. on the top of the Javali."

LUSITANIAN.—Feb. 1: At Taylor's engine-shaft, below the 120, the lode is worth 1½ ton of ore per fathom; winze worth 3 tons. At the 120, on Basto's lode, east of Taylor's, the lode is worth 2 tons of ore per fathom, and letting out a great quantity of water. The lode at the 120, west of Taylor's, is worth 1 ton per fathom. At 110 east the lode is worth ½ ton per fathom. At the 110 west the lode is 1½ ft. wide, composed of quartz and stones of ore. At the 90, east of River shaft, the lode is 1 ft. wide, composed of dry flookan. At the 70, east of River shaft, the lode is 2 feet wide, composed of quartz and ore, worth ½ ton per fathom. At the 28, west of Perez' shaft, the lode is 8 in. wide, composed of quartz and flookan, and letting out some small streams of water.—Levels on branch: The lode at the 8 fm. level, west of Perez' shaft, is worth ¾ ton per fathom. The lode on the adit level, west of ditto, is worth ½ ton per fathom. At the 28, east of slide on Ponte lode, the lode is 9 in. wide, composed of quartz, impregnated with lead and mundic, but in small quantities. At the 60 fm. level cross-cut, north of River shaft, the ground is a hard gneiss. At the 60, south of Oak engine-shaft, the ground is also a hard gneiss. These cross-cuts we soon expect to hole. At the 18 fm. level cross-cut, south of Basto's lode, and west of Perez shaft, we have cut the branch which underlies south, being 1½ ft. wide, and worth ¾ ton per fathom; it is composed of quartz and copper ore, with loose stones of country in it.—Carvalhal Mine: The incline shaft, below the 40, has only small strings in it, and we expect the lode is to the south.—Levels on the Great Lode: At the 40, east of incline shaft, the lode is worth ¼ ton per fathom. At the 30, east of ditto, the lode is worth 1 ton per fathom, of blende, and is very wet and troublesome for driving through. At the 20, east of ditto, the lode is in two parts, each being composed of quartz, containing lead, worth ½ ton per fathom. At the 10, east of ditto, the lode is 4 ft. wide, composed of quartz and lead, worth ½ ton per fathom.—Levels on North Lode: At the adit level, west of River Caima, the lode is 1 ft. wide, composed of quartz, mundic, and flookan. At the adit level, west of incline shaft, on canster lode, the lode is 15 in. wide, composed of quartz, mixed with mundic and lead, also some country.

PERDU CARTA AND ANDRIA (Sardinia).—J. L. Barker, Feb. 4: Calamine: We have eight men on tribute, at 5 fr. per cubic metre. The ore extracted and broken during last month exceeds the previous estimate, and is over 80 cubic metres, equal to 130 tons of first-class ore, over 40 per cent. for zinc. We stopped work a few days, to mend the cart-road, and commenced on a deeper cutting.—Silicate Deposit: We have 10 metres more to drive to strike this deposit; this is let out at 80 fr. per cubic metre. We have eight boys and two men cleaning old piles of calamine, and hope to finish next week. Mr. Barker concludes as follows:—"It gives me much pleasure to inform you that the bed of calamine is getting much richer in depth, and I am led to believe we shall raise a larger quantity once we get things in good working order. We have spent this month nearly 3000 fr., and have returned more than double that sum, for I have made an approximate calculation that our returns of calamine will surpass 6740 fr. In fact, on the whole, the mine is at present promising well."

ALAMILLOS.—Jan. 30: The 4th level, driving east of La Magdalena shaft, yields ½ ton of ore per fathom; the ground has rather improved, but the lode continues small. The lode in the 5th level, east of La Magdalena shaft, contains stones of lead, but not enough to value. The 5th level, west of La Magdalena shaft, is worth 1½ ton of ore per fathom; the lode is large and strong, and we expect to open a good length of productive ground this month. In the 5th level, east of Taylor's engine-shaft, the men are put to open on the north side, where the main part of the lode is still standing. The lode in the 6th level, east of Taylor's engine-shaft, is small and poor, and the ground wet and difficult to drive through. We expect an improvement shortly in both the last-named end and the 6th level, west of Taylor's shaft. In the 5th level, west of Taylor's shaft, the lode is improving, and now contains good stones of lead. The lode in the 4th level, west of San Andriano shaft, is very changeable, and at present not so productive as it was. In the 3d level, west of San Yago shaft, the lode has fallen off in value during the past few days. The 2d level, east of Cox's shaft, yields 1½ ton per fathom; this has opened a great length of valuable ore ground in the past month. The 2d level, west of Cox's shaft, is worth 1 ton per fathom; this end, also, is throwing open a good piece of productive tribute ground. The lode in the 3d level, east of Crosby's shaft, has slightly improved, and now produces ¾ ton per fm. The 2d level, east of Judd's, is being driven north to intersect the main part of the lode. The 2d level, east of Henty's shaft, is rather small, yielding ¾ ton per fathom. The 2d level, west of Henty's, is passing through a hard rib of ground, in which the lode is small, but we expect a speedy improvement.—Winzes: Tomas' winze, sinking below the 4th level, yields ½ ton of ore per fathom; this sink will be completed to the 5th level this month; this lode is small. Agueda's winze, below the 4th level, is going down in a valuable lode, worth 2 tons of ore per fathom. The lode in Prim's winze, below the 4th level is very large, vughy, and open, but contains a small quantity of lead. Guivada's winze, below the 3d level, is worth ¾ ton of ore per fathom; the ground is very easy for sinking, and the lode is of a promising appearance. The lode in Gandia's winze, below the 2d level, has declined in value in the past few days, and now yields only 1 ton of ore per fathom. The tribute department has only undergone the ordinary fluctuations in the past month, and the stopes are, on the whole, looking much the same as usual. The surface works are going on very regularly, and the machinery is working very economically. We estimate the raisings for February at 250 tons.

LINARES.—Jan. 30: West of Engine-Shaft: The lode in the 110, driving west of San Tomas shaft, is unproductive, and getting hard for driving. The 85, west of Warne's shaft, yields 1¼ ton of ore per fathom; the lode is wide and open, and of a promising appearance. In the 85, east of Warne's shaft, the lode, which is very large and unusally hard for driving, yields 1 ton of ore per fathom. The lode in the 45, east of San Francisco shaft, is compact and solid, and opening out a good length of valuable ground, worth 2 tons of ore per fm. The 31, east of San Francisco shaft, yields 1 ton per fathom; the lode here is not so well defined as it was.—East of Engine-Shaft: In the 95, east of Taylor's cross-cut, the lode has changed unfavourably since last report, and now produces only ½ ton per fathom. The 95, east of Taylor's shaft, also yield ½ ton per fathom; the lode is large and strong, with very good stones of ore in the upper part of the end.—Shafts and Winzes: San Francisco shaft produces 1 ton of ore per fathom; the lode is a little more compact and regular than it was. The No. 162 winze, which is holed to the 45, is worth 1½ ton per fathom. The No. 164 winze yields 1 ton per fathom; this winze is communicated with the 31 fm. level. The tribute department yielded the computed quantity of mineral in the past month, and the stopes are now on an average looking much as usual. We estimate the raisings for February at 275 tons. The machinery is in good working order.—Quinientos Mine: The 32, west of Taylor's engine-shaft, is worth 1½ ton of ore per fathom; the lode is large, strong, and opening very good tribute ground. The 32, east of Taylor's engine-shaft, although easier for driving, continues unproductive. The 32, east of Addis's shaft, is unproductive. The 32, west of ditto, yields ¾ ton per fathom. The driving of the last two ends being attended with considerable expense in keeping out the water, and the lode not opening out productive ground, we have suspended the driving until such time as the end east from Taylor's shaft shall drain the ground.—Shafts: In Taylor's engine-shaft, below the 32, the ground is very hard, and the men are not getting down as fast as could be desired. Cox's shaft is completed to the depth of the 32 fm. level, and the men are put to cross-cut south towards the lode. San Carlos shaft, below the 20, is worth 2 tons of ore per fathom. The old works are now very small in the east end of the shaft. In one part of the shaft the lode is worth at the rate of 4 tons in a fathom, but it is small at the western end of the shaft.

LAGUNA.—J. R. Rule, Jan. 8: There has been an interruption in the sinking of the shaft during the first two weeks in December, whilst the shaft was cased down nearly to the bottom; but at present the work of sinking goes on at the rate of about ½ vara per week. There are still good spots of ore throughout the shaft, and on the south side. The torta (No. 24) which has just been beneficiated has produced about 10 marcs of silver per monton, leaving a net balance to the company's credit of $295 4 6. I hope to write you at length in my next.

PESTARENA.—T. Roberts, J. Mitchell, J. Roberts, T. Warne, Feb. 2: Piedimulera: We remit this day to the office five ingots of gold, weighing together 371 ozs. 2 dwts. 6 grs., obtained from the three districts in the month of January, from 618 tons of ore. From 78 tons amalgamated at Pestarena we obtained 89 ozs. 11 dwts. From 123 tons of more inferior ore from Pestarena, amalgamated at Battigio establishment, we obtained 89 ozs. 15 dwts. From 18 tons amalgamated at Battigio, from the Cani Mines, yielded 9 ozs. 17 dwts. 8 grs.; and from 399 tons amalgamated at Piedimulera establishment, from Val Toppa Mine, we obtained 181 ozs. 18 dwts. 22 grs. During the past month the weather has been very severe, which has made very much against dressing and amalgamating the ore, the floating ice, getting into the mills, keeping the beds cold, which is very injurious to amalgamation, the ground ice accumulating in the water-courses, and also the ice gathering about the wheels, making their movements very irregular. At Pestarena we had not sufficient water for the mills the latter part of the month; there was only a supply for 74 mills, and on some days not a fully supply for the winding machinery. The weather the past two days has been more moderate, and we hope that it may continue.—Underground, Aquavite: The lode in the end of the 46 south continues to improve. The lode in the end of the 33 south is at present poor. The stopes in the back, behind this end, yields 7 ozs. of gold per fathom. The lode in the end of the 23 is improving, yielding now 5 tons of ore per fathom. We have commenced a new stope in the back of this level; the lode is 2 ft. wide, and we estimate it to be worth 6 ozs. of gold per fathom. We have suspended sinking the winze behind this end, and shall this month be driving north from the winze, to communicate to the back rising from a deeper level; the lode in the end of this winze we estimate to be worth 5 ozs. of gold per fathom. The stopes in bottom of the 23, south of whim-shaft, yields 6 ozs. of gold per fathom. The lode in the end driving north of engine-shaft, in this level, is unproductive, but the stope in the bottom, near this end, yields 5 ozs. of gold per fathom. The stopes in the bottom of the adit, near the boundary, yields 4½ ozs. of gold per fathom.—Peschiera: The lode in the bottom of the 75 north yields 6 ozs. per fathom. No change in the stopes in bottom of the 70 north; we were hindered some days from working these stopes the past week by a breakage of the main connecting-rod; it has since been repaired, and the water will be out again in a day or two. The lode in the end of the 70 north is not so productive as when last reported on. In the 46 the stopes in the bottom of No. 2 lode yield 4 ozs. of gold per fathom; and the lode in the driving south from the stopes, in the back of this level, yields 4 ozs. of gold per fathom. In the 33 no change has taken place in the end north on No. 4 lode. The lode in the end driving south under the slide, in the 16, yields 1 oz. of gold per fathom. We commenced a new stope in the back, behind this end; the lode yields 2 ozs. of gold per fathom.—On Surface: The unfavourable weather has obliged us to suspend the river wall.—Battigio Mine: The sledge-road from the mine to the establishment has been frozen nearly the whole of the past month, hindering the bringing down all the ore raised.—Val Toppa: At No. 4 level cross-cut east the ground is more favourable, and letting out water. The cross-cut west in this level continues to be encouraging. At No. 3 level the cross-cut east is in a beautiful stratum of ground, with strings of quartz, letting out plenty of water; we expect to be near the lode. In the new cross-cut east, at No. 2 level, we are making good progress. In an end driving south from the cross-cut, above Marmo Rosso level, we have reached a lode 2 ft. wide, composed of quartz and pyrites. From a trial made last week with a small mill it yielded 6 dwts. 12 grs. per ton of ore. We are rising from the back, above Marmo Rosso level, to communicate to this level, with a view to improve our position for stoping the Marmo Rosso lode. The new or flat lode, driving south from second cross-cut, is 6 ft. wide; we estimate it to be worth 1 oz. of gold per ton of ore. The end north from this cross-cut is 5 ft. wide, yielding similar ore. The lode in the south end, from inside cross-cut, is disordered.

WEST CANADA.—F. Williams, Jan. 15: Huron Copper Bay: The stope in the bottom of the 20 fathom level, east of Stephens's winze, is now worth 1¾ ton of ore per fathom, but there is a much better lode close ahead of us, which we hope to reach in about three or four weeks from this time. The stope in the bottom of the 20, west of Palmer's shaft, is worth 3 tons of ore per fathom. The stope in the bottom of the 20, east of Palmer's shaft, is worth 3½ tons per fathom. The stope below the 35, east of Palmer's shaft, is worth 2¼ tons of ore per fm. The stopes below the 20, east and west of Powell's winze, on the Fire lode, are worth 2 tons of good ore per fathom. The lode in the 60, west of Bray's engine-shaft, is still exceedingly poor, and very much disordered; in fact, we can see no change for the better since last reported on. The lode in the winze at Palmer's shaft continues poor, and without change for the better. The stope over the 35 will yield 2½ tons per fathom. The winze sinking below the 35 is worth 2½ tons of ore per fathom. The lode in the 50, east of Bray's, has very much improved of late, and will now yield 2 tons of ore per fathom; this speaks well for this part of the mine.—Wellington Mine: The stope in the bottom of the 24 is worth 2 tons of ore per fathom. The stope below the 36, east of this shaft (Mitchell's) is worth 2 tons of ore per fathom. The lode in the 24, east of this shaft, is worth 1½ ton per fathom. The lode in Mitchell's shaft is still large and kindly, but does not improve much in value. The stope east of Rowe's shaft will yield 2 tons of ore per fathom. The stope west of this shaft is worth full 2½ tons of ore per fathom. The stope in the back, west of this shaft, will yield 1¾ ton of ore per fathom. Everything throughout the mine is going on satisfactorily.

CAPULA.—Capt. Paull, Jan. 8: The Mine: There is not much alteration in any of the places now working since my last, of the 27th ult. The cross-cut north from shaft is stopped, and the sumpmen have resumed the sinking of the shaft. The water is nearly all cut down that was falling from the sides of the shaft, and the winzes east and west of shaft, on the different lodes, are nearly dry, and also San Onofre winze, in San Enrique level; but in the winzes below the Esperanza level it is just the same, which plainly shows the ground to be very close for several varas west of shaft. In San Enrique end, which we are now cross-cutting to get to the south wall of the lode, so as to get under the winze sunk from San Frutoso level, the lode is looking very promising—some stones of ore (gossan), intermixed with blue pinta, that were broken last week. In cross-cut south from the Esperanza level we have met with (gija morado) violet colour quartz, which the Mexicans say is sure to lead to good metal. There are no signs yet of the south wall.—Hacienda: I have been waiting for the owners' reply to my letter about the lowest rent they will let San Diego hacienda for one year. No doubt but I shall get it to-morrow, but that will be too late for this packet. In my last I mentioned there were 15 stamp heads in good order, and, on the opposite side, framework for 15 more, which ought to grind in the rainy season, when there is a full supply of water, 500 cargas weekly. The wheel is 40 ft. diameter, and, with the present stream of water, we can grind at least 150 cargas weekly. By doing away with one of the arrastres we can, for a small sum, put up two, or even four, barrels. There are two calcining-furnaces, which will not cost much to put in good repair. The roof over this is certainly very bad. I believe I can get quicksilver here at $66 per quintal, sulphate of copper at $16 per quintal, and salt at $1 per arroba.

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, Jan. 11: 11 feet of tunnel were made last week.

FORTUNA.—Jan. 30: Canada Incosa Mine: In the 110, driving east of O'Shea's shaft, the water having increased so much, we have suspended the driving until we get in a larger lift. The lode in the 100, west of Henty's shaft, is still in a very unsettled state, yielding ¼ ton of ore per fathom. The 90, west of Judd's shaft, produces 2 tons of ore per fathom. There is a slight improvement in this end since our last report. There is no change in the character of the ground in the 80, south of Henty's. The lode in the 90, east of Addis's, contains a little lead, but not enough to value. The 70, east of Carro's shaft, is worth 1 ton of ore per fathom. The ground is a little more favourable than it was. In the 50, east of San Pedro shaft, the lode is large, composed of quartz and lead ore, yielding of the latter 1 ton per fathom.—Shafts and Winzes: In Henty's shaft, sinking below the 100, nothing has been done in sinking since last report, the men having been repairing the shaft, cutting plat, &c. Lowndes' shaft, below the 75, is worth 1 ton per fathom. The ground is not so favourable for sinking as it was; the lode is looking a little better. In Pigueno's winze, below the 75, there is no change; the lode is worth ¾ ton per fathom. Prueba's winze, below the 100, yields 1 ton per fathom. The lode is looking kindly, and the ground is favourable for sinking. Primero's winze, below the 80, is also worth 1 ton per fathom. The lode is improving in this winze, and, judging from the level below, we expect a further improvement shortly. Avita's winze, below the 110, produces 2 tons of ore per fathom. This winze is situated to the east of O'Shea's shaft; lode compact and solid.—Los Salidos Mine: The 100, west of Morris's engine-shaft, is not yet out of the influence of the cross-course. The 75, west of Buenos Amigos shaft, is worth 1 ton of ore per fathom. The lode has fallen off in value since last report, but is again showing indications of improvement. The 100, east of Morris's engine-shaft, yields 2½ tons of ore per fathom. We have a great improvement in this end; the lode is looking splendid, composed of soft granite, carbonate of lime, and lead ore. The lode in the 90, east of Cox's shaft, is large and strong, yielding 13¾ ton per fathom, and the ground is hard. The 75, east of San Pablos shaft, is worth 2½ tons of ore per fathom. Very little has been driven in this end since last report, the men being engaged in stripping down a branch in the north side of the level.—Winzes: Tomas' winze, sinking below the 65, yields 1¾ ton of ore per fathom. The men are getting on well with this sink. We expect to hole to the 75 very soon. Ramon's winze, below the 75, produces 1 ton of ore per fathom. No change has taken place. Murillo's winze, below the 75, also yields 1 ton per fathom. The lode in this winze has greatly fallen off since last report both in size and value.

ANGLO-ITALIAN.—Mr. Pearson Morrison reports: The advance made in the various cross-cuts somewhat exceeds that of last month. The Taglietta cross-cut I have determined to suspend for the present, so as to concentrate as much as possible our force towards the speedy development of the following places:—The Frisa Gallery: Operations resumed. The winze has now a depth of nearly 8 metres carrying a fair lode of friable quartz, with pyrites 90 centimetres wide, worth 13*l.* per fathom. The same is being pushed as much as possible to the 25 metre level, from which point levels will be driven north and south.—Gallery Boscon d'Oro: In this new gallery, commenced some 40 metres above the Sta. Barbara cross-cut, the continuation of the Frisa lode has been met with; size of lode 70 centimetres, worth 15*l.* per fathom. This discovery leaves now but little doubt that the intersection of the Frisa lode in Sta. Barbara cross-cut, when sufficiently advanced south, will also prove productive.—Level Asino, East Side of Stream: Some 300 metres of levels and stopes have been opened by the old adventurers, but there still remains a large extent of unstoped ground. We are sinking a large winze in level N. Trial by fire of samples taken the entire length of the level, 8½ dwts. per ton. The above work in the course of a few months will add greatly to our supply of ore.—Reduction Works: For the last ten days the mills have been stopped, and will remain so until the cold season is passed. The excavations necessary for stamps, amalgamators, &c., besides other works in connection with same, are all in full course.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

EAST WHEAL GRENVILLE has considerably improved during the past week. In the 53 fathom level east the lode is 3 feet wide, and worth 3 tons of copper ore per fathom; the lode is showing splendid indications, a great part of the ore being the green carbonate of copper. To use the agents' own words—"If the lode does not lead to a great body of ore no faith should be put in indications." The rise in the back of the 55 is worth 3 tons of ore, or in money value 21*l.* per fathom. The lode will shortly be cut in the 120, when a cross-cut will at once be commenced north to intersect the West Frances tin lode, which, there is scarcely a doubt, runs through the entire length of the sett in depth.

At WHEAL GRENVILLE the cross-cut in the 90, for the new lode, is making good progress. Small branches are constantly met with, the last branch passed through being 3 in. wide, containing splendid tin, and underlying north in the direction of the lode. Great hopes are entertained of this cross-cut. The lode driving for is the same that is now being worked on in South Condurrow, the agents of which mine state that they can return from 9 to 10 tons of tin per month with their present means of dressing. As Wheal Grenville is now meeting its cost the cutting of a new lode of only half the value it is in South Condurrow would result in immediate and good profits, as the mine is provided with stamping and dressing appliances to return treble the amount of its present tin sales.

ST. JUST AMALGAMATED is now making regular monthly profits. The tin raised and sold for the month of January amounted to nearly 18 tons, and realised 1164*l.* 19*s.* The total monthly cost, including dues, merchants' bills, and London expenses, amounted to 950*l.*, leaving over 200*l.* net profit for the month.

WHEAL BASSET AND GRYLLS.—Capts. W. Oats, jun., and Paul Prisk say—"We have employed on tribute 60 men and 10 boys, at an average tribute of 12*s.* 6*d.* in 1*l.*; on tutwork, 64 men and 3 boys; smiths and carpenters, 5 men and 2 boys; enginemen, 9 men; surfacemen, 9 men and 2 boys; landers and fillers, 6 men; sawyers, 2 men and 1 boy; pit and timbermen, 2 men; dressing tin, 6 men, 32 boys, and 46 girls: making a total of 163 men, 50 boys, and 46 girls. The tin sold for the quarter was 51 tons 0 cwt. 1 qr. 10 lbs., producing 3698*l.* 15*s.* 6*d.*"

MINING IN CARDIGANSHIRE.—Nothing gives me greater satisfaction than to hear of the capital of England being employed in legitimate mining speculation. It is a branch of commerce that enriches everybody directly from the rock. I have known in some of the lead mines of this famed deposit of slate as much as 3 tons of pure silver returned annually from one mine, independent of the lead mines, which are a source of unmitigated good to the whole nation. I was very proud on my last visit to Machynlleth to find that these great mines, for a long time supported by that eminent man Mr. Cobden, were vigorously at work, and paying exceeding well Mr. Bright and the parties connected with him. I also found that the mines were to be extended under the name of EAST DYLIFFE, by a London company, and, although I have passed much of now a moderately long life in Cardiganshire, partly in connection with these identical mines, if I were put to my conscience to declare what I considered a great, valuable, and legitimate mining undertaking, I should answer that, without doubt, East Dyliffe formed one of the most valuable mining properties in perspective in Cardiganshire or Montgomeryshire. The lode there is large, well filled with the metals of lead, copper, and some silver, and it comes up in unmistakable form to the surface. I cannot doubt but that this portion of the strong lode will form a rich mine in East Dyliffe, to which the promoters are well entitled from selection and mining qualities.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending Feb. 6 amounted to 9856*l.* 5*s.*

BRAZILIAN STREET RAILWAY COMPANY (Limited).—The receipts for December amounted to about 2620*l.*, as compared with about 2126*l.* for the corresponding month of 1867. Receipts to Jan. 14, about 1500*l.*

The Dolwen Company, Limited.

CAPITAL £5000, IN 5000 SHARES OF £1 EACH.

DEPOSIT 10s. PER SHARE.

DIRECTORS.

MR. ALEXANDER BRIDGE, 7, Argyll-place, Regent-street, W.
MR. J. B. BALCOMBE, Aberystwith (Managing Director Bronfloyd Company).
MR. CHARLES FAUNTLEROY, Russell-street, Bermondsey.
MR. JAMES RHODES, Hanover-street, Islington, N.

BANKERS—THE NATIONAL PROVINCIAL BANK OF ENGLAND, ABERYSTWITH.
BROKER—MR. EDWARD BALCOMBE, 48, Threadneedle-street and Stock Exchange.
AGENT—CAPTAIN JOHN DAVIS, Manager, Llywernog Mine.
SECRETARY—MR. HENRY FERGUSON.

OFFICES,—QUEEN'S ROAD, ABERYSTWITH.

This company was incorporated March, 1867, in 1000 shares of £5 each, with the object of purchasing a lease for 21 years from October, 1866, arranged to be granted by the Hon. J. Kenneth Howard, Chief Commissioner of Her Majesty's Woods, &c., of the mines and minerals contained within and under 798 acres of land known as Bodcoll and Dolwen, and to work the said mines.

The property is situated about 14 miles east of Aberystwith, 2 miles from Devil's Bridge, and about 1¼ from Cwmystwith. It contains two masterly lead lodes; the south one being, according to repeated diallings, the same lode as the celebrated Frongoch of the Lisburne Mines, worked by a company under the management of Messrs. J. and R. Taylor and Co., which mines, upon a capital of £7500 (400 shares, £18 15s. paid), have yielded and returned £510 per share—total dividends, £204,000.

The effects of the late commercial crisis not having worn off in March, 1867, only 421 shares of this capital were subscribed for; however, the proprietors, acting under the best obtainable advice, determined to take up the lease, and to carry out certain exploratory trials in order further to test the south lode. The work that has been so done will be best evidenced by the appended joint report, made on the 5th instant, of the agents of the Llywernog Mine, and of the celebrated Bronfloyd Mine.

The position of the property will be further explained by the following extracts from reports made by Mr. J. H. Hitchins, consulting engineer to the Devon Great Consols Mines, and by Mr. Matthew Francis, C.E., formerly chief agent of the celebrated Frongoch Mine.

Mr. J. H. Hitchins says:—"Dolwen is a portion of one of the greatest and richest lead mining districts in Cardiganshire, being a few miles only from the celebrated Lisburne Mines, which for a great number of years have uninterruptedly proved abundantly productive, and realised for the fortunate proprietary (as is well known) very handsome dividends. It has always been supposed that the lode worked on the Dolwen mountain is the main lode of Frongoch, which opinion is justified, seeing that the particular point referred to is as directly on the general bearing line of the Frongoch lodes as possible. Let this be as it may, it is, however, important that the rock formation is the same in Dolwen as in Frongoch, and indeed the same (not only so in exterior character, but also in its elementary conditions) as prevails throughout this district: it is a highly metalliferous rock, and indeed the only true ore-bearing one of the district, and that fact is established by so many rich mines having been realised in it."

Mr. Matthew Francis says:—"The position of the Dolwen Mine is on the same meridian with Cwmystwith, and I believe the lode to be the north limb of the great Frongoch lode in proceeding eastward from that mine. Dolwen has long attracted the attention of the miner, as the back of the vein has been traced by means of costean pits for hundreds of fathoms on either side of the mine, and the indications presented are such as to remove all doubt about the propriety of giving the mine a proper trial. For my own part, having been for many years engaged as agent of the Frongoch Mines, I am able to speak with certainty as to the filling of the lode, and I can testify that the stuff from every pit where the lode has been opened upon at Dolwen might readily be taken as the produce of Frongoch itself. I, therefore, have no hesitation in saying that you will be justified in giving the mine a thorough trial. A shaft has been sunk 14 fathoms from the surface, and a level driven a few fathoms to the east of it at the bottom. An adit has been taken up about 100 fathoms to the east of the shaft, so as to meet the eastern driving by continuing the adit westward; this adit has been driven 62 fms., and it has 26 fathoms further to be driven to make a communication with the driving from bottom of shaft. I think the first step towards an extensive trial should be taken by driving the 26 fathoms of the adit, and proving this ground."

Mr. Matthew Francis again says:—"After the lapse of a year I find, on my second inspection of Dolwen, that the eastern adit has now been completed to the engine-shaft, and the character of the lode justifies Mr. Josiah Hitchins' prediction that the vein would yield good returns a little below the 14 fathom level. I saw there, to-day, some of the richest branches of lead extending for several feet in width between the intermediate rock forming the vein, the lode stone being about 2 ft. in width, and the ribs of solid ore being in many places several inches in thickness. I should say the lode yields at this point (12 fms. east of engine-shaft, and 16 fathoms from the surface in the adit level) upwards of a ton of ore per cubic fathom. I have not seen a better vein since the opening of the great Frongoch ore deposits, and this is evidently on the same lode."

"I have no difficulty now in recommending the company to lay out the money necessary for furnishing this mine with good and efficient machinery, and I have no doubt but the returns will amply remunerate such an outlay."

The directors were, through several other channels, advised that Dolwen was one of the most promising pieces of unexplored mineral ground in the Principality, the development of which had alone been hindered by the questionable title of the Crown lessee; however, as in the interim the difficulties affecting the old lease were overcome by a new grant at one-fourteenth royalty direct from the Crown, they put in hand the exploratory trials recommended, and the result abundantly proves the soundness of Messrs. Hitchins and Francis' advice. These operations have been solely confined to the Dolwen or eastern portion of the property, and it is a significant fact that Messrs. J. and R. Taylor have recently purchased and taken an assignment from the present company of the western ground of this sett, and formed a separate company to work the same.

In order to extend the basis of the present company, special resolutions have been passed to subdivide the 1000 shares of £5 each into 5000 shares of £1 each, without further liability—2000 of these shares will represent the outlay of the company to the present time, and the remaining 3000 shares will form the future working capital. Of the 3000 shares, 755 have been privately subscribed for, and the directors may add that as most of the speculative character attending the opening of a mine is at an end in this case, they offer with confidence to public acceptance the remaining shares (reduced to a minimum liability), believing that the application of the capital so to be raised will, with energy and steady perseverance, develope a fine property.

Prospectuses may be had of Mr. EDWARD BALCOMBE, 48, Threadneedle-street, London, to whom all applications for shares should be forwarded.

Aberystwith, Feb. 5.—In accordance with your instructions, we yesterday fully examined the workings and dialled the lodes of the Dolwen Mine. There are two lodes in the sett, which is a very extensive one, exceeding a mile upon the run of the lodes. The adit level starts from the western boundary, and is driven 72 fathoms on the course of the south lode, which is composed of spar, light clay-slate, copper, and lead ores; a good masterly lode for the entire drivage. At the end of this level a change of ground has set in, which is indicative of an improvement in the value of the lode; this lode has a regular bearing of 28° north of east, corresponding exactly with the run of the Frongoch lode of the Lisburne Mines, where it has for years past and still is yielding 150 tons of lead ore per month. The north lode has a bearing about 10° north of east, and will cross or form a junction with the south lode about 25 fms. in advance of the present end of the adit level just noticed, and to this fact may be ascribed the change of ground in that level; although, according to the dialling, the junction itself may not be attained under a drivage of 30 fms. To prove the character of the lode east of the supposed junction, a costean pit has been opened, and here the lode for 15 fms. proves to be strong and very highly mineralised with copper and ores and fine spar, combining, in fact, every feature necessary to the formation of a large deposit of lead ore in depth. About 160 fms. further east a trial has been alike made upon the lode by sinking a pit about 4 fms. deep, and so valuable was the result, that the lode was all stoped away to that depth and for several fathoms in length; indeed, it must have yielded considerable quantities of ore, and there is still lead standing in the lode so exposed. Still further east, about 200 fms., a more extended and a more important trial has been made, which, in fact, sets at rest all questions as to the great value of the mine. A shaft has here been sunk on the dip of the lode 14 fms., and the level opened 8 fms. east from the bottom of the shaft on the run of the lode; it there communicates with a shallow adit driven up 86 fms. from the north side of the hill, and these workings are consequently dry, which afforded us the opportunity of inspecting and estimating the lode at each point; it bears the same favourable character, and is formed of a like matrix, and there is now to be seen standing in the lode ribs of ore varying from 2 to 6 in. in width. Another costean pit has been opened 80 fms. east of this point, and the lode there also produces good stones of lead ore. Now as to future workings, to which we have given our practical attention. We confidently recommend that the first-named adit should be extended by a regular force of men (say 6), and continued without intermission up to the junction of the north with the south lode, thereby proving the lode step by step as it progresses; at the same time a shaft should be started at about 10 fms. beyond the supposed junction of the lodes, and be sunk by nine good miners. We estimate that this shaft will have to be sunk on the dip of the lode 27 fms., and that it will take from seven to nine months to accomplish, by which time the adit will have passed the junction, and be extended to and meet the bottom of the shaft, and thus thoroughly ventilate the mine. The outlay necessary for this further trial will not exceed £900, inclusive of all costs; the time necessary to accomplish it would be nine months. We do not wish to over-estimate the returns which will, in all probability, arise from these suggested trials, but looking at the present value of the lode, and calculating, as we confidently do, for an improvement as the junction is approached, several tons of lead ore ought to result. About £500 will presently be required for the erection of all the machinery necessary for years to come—that is to say, a 40-feet. diameter water-wheel, a crusher, a drawing-machine, and for the construction of the dressing-floors. The mine is bounded on three sides by the Mynach and Rhydd-nant Rivers, giving an ample supply of water at all seasons of the year. A great deal of work preparatory to bringing it home to the mine has already been done; a wheel-pit and the requisite offices have also been erected. Looking, therefore, to the facts that there is a fine champion lode proved to contain ore at every point; that the trials at various depths extend for upwards of half a mile; that the lode is a continuation of Frongoch, where, as we have said before, it is so immensely valuable; and that the mine may be thoroughly worked for many years without the aid of pumping machinery—for as the angle or the south side of the hill, from east to west, is 12½°, thus the adit first mentioned will rapidly gain backs, and, at the extreme rise, will not be less than 120 fms. from surface—we beg to say that we are much pleased by our inspection, and satisfied that if the course we have recommended be energetically carried out the proprietors will be amply rewarded for their outlay.

JOHN DAVIS, Resident Agent, Llywernog Mine.
THOMAS KEMP, Resident Agent, Bronfloyd Mine.

P.S.—We should each be willing, and esteem it a favour, to be allowed to invest 50*l.* in the shares.

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services to all connected with mine or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

SATURDAY.—Active demand for Great North Laxey, at an advance. Chiverton, New Lovell, West Chiverton, East Caradon, and Great Laxey flatter. Great North Laxey, 35s. to 40s.; Chiverton, 2¼ to 2⅜; New Lovell, 3 to 3¼; West Chiverton, 54 to 56; East Caradon, 9 to 9¼; Great Laxey, 19 to 20; Great Wheal Vor, 11½ to 12; Prince of Wales, 19s. to 21s.; Chontales, 20s. to 25s.; Don Pedro, 4⅛ to 4¼.

MONDAY.—Market rather brisker. Grenville, East Grenville, Seton, Prince of Wales, East Lovell, Frank Mills, Great North Laxey, and New Lovell in good demand. Grenville, 32s. 6d. to 35s.; Seton, 75 to 80; East Grenville, 3½ to 3⅝; East Lovell, 8 to 8½; Prince of Wales, 20s. to 22s.; Frank Mills, 3¾ to 4; Great North Laxey, 35s. to 40s.; New Lovell, 3⅛ to 3⅜; Chiverton, 2½ to 2¾; West Frances, 40 to 42; Chontales, 1¼ to 1⅜; Don Pedro, 4⅛ to 4⅜; West Chiverton, 54 to 56.

TUESDAY.—Market quiet. Great North Laxey, West Frances, Prince of Wales, Herodsfoot, and Great Wheal Vor shares chiefly dealt in. Great North Laxey, 32s. 6d. to 37s. 6d.; West Frances, 40 to 42; Prince of Wales, 20s. to 22s. 6d.; Herodsfoot, 43 to 45; Great Wheal Vor, 11½ to 12; Drake Walls, 17s. to 19s.; New Lovell, 3 to 3¼; North Treskerby, 18s. to 20s.; West Chiverton, 54 to 55; Grenville, 33s. to 35s.; Chontales, 1⅛ to 1⅜; Don Pedro, 4⅛ to 4¾; Yudanamutana, 2 to 2¼.

WEDNESDAY.—The market is rather active to-day for Prince of Wales and Great North Laxey shares. Chiverton, East Caradon, and West Chiverton shares are flatter. Prince of Wales, 22s. 6d. to 25s.; Great North Laxey, 32s. 6d. to 37s. 6d.; Chiverton, 2½ to 3; East Caradon, 8½ to 9; West Chiverton, 52 to 54; West Seton, 200 to 210; Seton, 75 to 80; New Lovell, 3 to 3¼; Great Laxey, 19 to 20; Chontales, 1 to 1⅛; Don Pedro, 4⅛ to 4⅜.

THURSDAY.—Great demand to-day for Prince of Wales shares, at 25s. to 30s.; Grenville, 35s.; East Grenville, 3⅜; West Frances, 40. East Caradon shares receded to 8½, and West Chiverton to 52½, sellers. Chiverton, 2¾ to 3; Drake Walls, 15s. to 17s. 6d.; Great Retallack, 2¼ to 2¾; Great North Laxey, 32s. 6d. to 37s. 6d.; Chontales, 20s. to 22s. 6d.; Don Pedro, 4⅛ to 4⅜; Yudanamutana, 2 to 2⅛.

FRIDAY.—Active demand to-day for Grenville, 39s. to 41s.; East Grenville, 3½ to 3¾; Great Retallack, 2¼ to 2¾; Great Vor, 11½ to 12; Herodsfoot, 44 to 46; Providence Mines, 35 to 37; West Frances, 41 to 43; and Emily Henrietta, 21 to 22. West Seton, 190 to 200; North Crofty, 17s. 6d. to 22s. 6d.; East Caradon, 8¼ to 8¾; New Lovell, 2¾; and Basset, 70 to 75, flatter.

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, Feb. 10: In consequence of the lode in the shaft taking a more vertical direction the shaft is being sunk in its regular course by the side of the lode, and we do not expect to see it again until another level is reached; when last taken down the lode produced 9 tons of ore per fm. for the length of shaft, and as in this district when lodes become more vertical (as in this case) it is invariably considered a good indication of increased value, I am sanguine to believe it will prove so here. In the 90 east the lode is worth 4 tons of ore per fathom. The lode in the 75 east is 4 feet wide, producing full 5 tons of ore per fathom. The stopes are producing on an average 4 tons of ore per fathom.

BRYN GWIOG.—S. Harper, Feb. 10: Since my last report we have communicated the 85, west from Bramwell's shaft, with the same level east from Adams's winze, cleared all the stuff from both ends, and have commenced the driving of the level west, from Adams's winze, by four men; the lode at present is 1 ft. wide, composed of spar and lead ore—saving work. I have put the shaftmen to cut winze-plat in the same level, and shall sink a winze on the run of lead gone down in bottom of this level. We shall also continue the sinking of Bramwell's shaft below the 85 whenever we are not drawing from this shaft, as we shall have to carry on these two points with one pare of men until such time as we have reached the proper depth, so as to put in proper penthouse for the men to work safely under the skip. We have set two pitches in back of this level, at 100s. per ton, and hope they will prove well. As regards the other old pitches in the mine, they are much the same as for some time past. The lode in the 75, west of the said shaft, still continues much the same as for some time past, producing a little lead, but not to value. At Lloyd's shaft, in the winze in bottom of 60 yard level west, in the past fortnight, we have met with some fine deposits of lead ore, but the ground is still in a very unsettled state, yet still favourable for producing lead. We drew to surface, on Monday last, a fine lot of lead ore-stuff. To-day it is not looking quite so good, yet still producing good lumps of lead. The water at the engine has again been very strong in the past fortnight; both the engine and pitwork has worked remarkable well.

BUDNICK CONSOLS.—J. Evans, Feb. 9: The shaft is completed to the adit level, which is about 40 fathoms from surface, and are now clearing to the lode and branches of tin; whilst the men are engaged about this we shall erect whim, &c., for drawing the tinstuff to surface. We sold the tributers' tin last week, which turned out very well.

CAPE CORNWALL.—R. Pryor, T. Gundry, Feb. 9: Saturday last being our pay and setting, the following bargains were set:—The 100 fm. level cross-cut, to drive north of engine-shaft, by four men, at 10*l.* per fathom. The 70 fathom level cross-cut, to drive south of shaft, by three men, at 12*l.* per fathom; these two cross-cuts have been pushed on as fast as possible, but we have not as yet reached the lode at either of the points; the ground in each end is still thickly impregnated with mundic and copper ore.

CARADON CONSOLS.—S. Bennetts, Feb. 9: The ground in the 78 fathom level north continues good. The gossan lode still looks well in prospect, but the quantity of ore remains just the same as it has been—spots, intermixed with gossan. The Clymo's lode, in the lower part of the end, is 1½ ft. wide—good dredge work. The main lode west is 1 ft. wide, and containing spots of ore in hard spar.

CARDIGANSHIRE.—E. Pearse, Feb. 8: In the 50 fm. level cross-cut, north of the engine-shaft, we have a change of ground, and I believe we are near the lode; the ground is spotted with lead ore and blende. The stope in back of the 40, west of No. 2 winze, is worth 12 cwts. of lead ore per fathom. The stope below the 30, west of the above-named winze, is worth 8 cwts. of lead ore per fathom. I have set a pitch to four men, at 10*s.* in 1*l.*, on the south lode in back of the 20, which will produce 3 tons of good quality blende per fathom; and I expect to have a good parcel ready for market by the end of March.

CARN CAMBORNE.—John Truscott, Feb. 10: In the 85 we have commenced cross-cutting north towards the lode, where the ground is favourable. In the 70 west the lode is worth 6*l.* per fathom. In the 60 fathom level cross-cut north we have intersected a branch or lode, split up for 4 ft. wide, containing a little ore. We shall commence opening east and west on its course. The 60 west, on the lode, is suspended, and we shall cross-cut south to prove whether there is more lode in this direction.

CENTRAL MINERA.—Wm. Davies, Feb. 11: In the 50 yard level west fair progress is being made; the ground is easy for progress, and yielding good stones of lead. We have also obtained some good stones of lead from a stope in the bottom of this level. The repairing of the 40 yard level is now nearly completed. We are busy dressing, and shall soon have a small parcel of lead ready for sale.

CHIVERTON MOOR.—J. Juleff, W. Bennets, Feb. 11: In the 85, east of the engine-shaft, the lode is 1½ ft. wide, composed of flookan. In the 85 west the lode is 3 ft. wide, composed of spar and mundic, with a more promising appearance. In the 75 west the lode is 12 in. wide, at present unproductive. In the 65 east the lode is 4 ft. wide, producing stones of lead. The winze sinking below the 65, west of the engine-shaft, is down 5 fathoms in a lode worth 15 cwts. of lead per fathom. At Clogg's shaft the 40 south cross-cut is in 4 fathoms, and the north cross-cut is extended 5 fathoms, and making fair progress.

CUDDRA.—F. Puckey, Feb. 11: In cross-cutting the lode in the 142 fm. level end, west of Walker's shaft, we have cut into it about 4 ft. The tin part of the lode for 3 feet wide, and 2½ feet under the back of the end, is very good for tin; below that point the lode is disordered by a small cross-course crossing the lode and underlying west. We shall at once commence to drive west in the tin part, to prove if the lode holds down good to the west of the said cross-course. This we shall prove by driving only a short distance in that direction. The other parts of the mine are without alteration, as only a small portion of the lode in the different stopes has been taken down since last report.

CWM DARREN.—R. Clocker, Feb. 11: Our engine-shaft is being pressed forward as fast as possible, and I have nothing to say respecting the richness of the lode beyond what I have before stated; it is as it has been reported for the last fortnight, a rich and productive lode. The drivage of the adit 130 fathoms west of the engine-shaft is proceeding satisfactorily, and producing good ore, and I think from the appearances at present likely still to get better. When you pay us a visit you will see that we have broken down some very good stones of ore from this place. We are getting on as fast as possible with the dressing, and all the other operations are being carried out according to your wishes and instructions.

DOLCOATH.—J. Thomas, W. Provis, J. Tonkin, J. Bawden, Feb. 8: The engine-shaft is sunk 6 fms. under the 290; the lode is producing a little tin. The 290, east of engine-shaft, is worth 20*l.* per fathom. The 290, west of engine-shaft, is producing a little tin; this end is about 5 fms. short of old sump-shaft, which we have just commenced to sink under the 278, where the lode also produces a little tin. The 278, west of old sump, is worth 30*l.* per per fm. New east shaft, sinking under the 278, is worth for 9 ft. long, 20*l.* per fm. The 278, east of new east, is worth 60*l.* per fm. The winze under the 266, west of old sump, is worth, for 9 ft. long, 25*l.* per fm. The 266, east of new east, is producing a little tin. The 266, west of old sump, is worth 30*l.* per fm. The winze under the 254 has been holed to this end since the last account, and we have commenced to sink another winze under the 254, 25 fms. further west, where the lode is worth, for 9 ft. long, 50*l.* per fm. The 254, west of old sump, is worth 30*l.* per fm. The 254, east of new east, is producing a little tin. The winze under the 242, west of old sump, is worth, for 9 ft. long, 30*l.* per fm. The 242, west of old sump, is worth 20*l.* per fm. The 242, east of new east, is worth 20*l.* per fm. The winze under the 230, just before this end, is worth, for 9 ft. long, 35*l.* per fm. The 230, east of new east, is unproductive. The 230, west of old sump, on the north lode, is worth 15*l.* per fm. We have commenced to sink a winze under this level since last account, where the lode is worth, for 9 ft. long, 50*l.* per fm. The 220, west of Harriett's, on the north lode, is worth 15*l.* per fm. The 236, west of Harriett's, is worth 10*l.* per fm. The winze under the 224, just before this end, is worth, for 9 ft. long, 30*l.* per fm. We are sinking Harriett's shaft below the 236, but this is not on the lode. The 224, west of Harriett's shaft, is worth 15*l.* per fathom. About 10 fms. before this end a winze is sinking under the 212, where the lode is worth, for 9 ft. long, 60*l.* per fm. The 212, west of Harriett's, is producing a little tin. The 210, east of new east, is worth 10*l.* per fm. Valley shaft, just over this end, is sunk 8 fms. under the 190; the lode is producing a little tin. The 215, east of Stray Park, is worth 10*l.* per fm.

EAST CARADON.—J. Truscott, Feb. 10: Caunter Lode: The 115 east is saving work. The 100 east is poor. The 100 west is poor.—Childs's Lode: The 90 west is worth 20*l.* per fathom. The 90 east is worth 15*l.* per fathom. The 80 west is worth 10*l.* per fathom. The 70 west is worth 20*l.* per fathom. The 70 east is worth 7*l.* per fathom.—South Part of Childs's: The 10 east is worth 5*l.* per fathom. The 80 west is worth 5*l.* per fathom.

EAST CHIVERTON.—Richard Southey, Feb. 11: Setting Report: Last Saturday being our usual setting day, we set Bartlett's engine-shaft to sink below the 25 by nine men, at 35*l.* per fathom. The main cross-cut to drive north by four men, at 40*s.* per fathom, and to drive east on No. 1 lode at 60*s.* per fathom. During the late rains our engine-shaft has been exceedingly wet, and the ground much harder than we expected, which has very much impeded our progress in sinking. Notwithstanding, we hope to get down to the 40 about the end of the present month. The ground in the main cross-cut north has the same kindly appearance as when last reported on. The latter part of last month we put in a new boiler, which, together with engine and pitwork, is working very satisfactorily. No other change to notice.

EAST PROVIDENCE.—J. Nancarrow, Wm. White, Feb. 6: The following work was set to-day:—Boorman's shaft to sink below the 122, by nine men and three boys, at 20*l.*, and also to drive south at that level at 10*l.* per fm. The 106 to drive north, by six men, at 6*l.* per fm.; lode large, and promising. Winze to sink below the 94, by four men, at 6*l.* per fm.; lode improving. The 70 to drive east, on the Standard, by four men, at 7*l.* per fm.; lode worth 8*l.* per fm. The 50 to drive east, by two men, at 7*l.* per fm.; end opening tribute ground. Also eight pitches, to 16 men, at an average tribute of 8*s.* 8*d.* in 1*l.*

EAST ROSEWARNE.—C. Glasson, Feb. 11: In King's shaft, sinking below the 115, the lode is 15 in. wide, worth 10*l.* per fathom. In the 115, west of the shaft, the lode is 15 in. wide, worth 7*l.* per fathom. In the 115, east of shaft, the lode is 18 in. wide, worth 6*l.* per fathom. In the 105, west of the shaft, the lode is 6 in. wide, producing stones of copper ore, but not enough to value. In the 105, east of shaft, the lode is 15 in. wide, worth 6*l.* per fathom. In the 95, east of shaft, the lode is 12 in. wide, worth 3*l.* per fathom.

EAST SETON.—J. Vivian and Son, W. Thomas, jun., Feb. 11: The lode in Basset's engine-shaft, sinking under the 20 fm. level, is 3 feet wide, composed principally of flookan. In the 20, driving east of ditto, the lode is also composed of flookan, and in which we are making good progress towards our eastern copper ore ground; in addition to which the engineers and masons are making necessary preparations for fixing flat-rods to the eastern shaft, so that the development of this part of the mine may be carried out at a rapid rate, and the chances of an early improvement are probable.

EAST SNAEFELL.—W. H. Rowe, Feb. 9: The improvement in the 20 sump is checked for the present by a bed of country spar entering and disturbing the lode; the strike and dip are identical with that met with in the shaft about 6 fathoms below the 20. In order to see how it will affect the shoot of ore, I have directed the men to cut in a yard or two southward, between the rider and the hanging-wall, which I think desirable before sinking further. In the 35 south there is a kindlier looking end than we have yet seen at this depth, the jack and spar more mixed with lead, and the water and open joints induce the hope that this level will discover payable ore ground. The stope in the roof of the 21 south has also improved since Thursday.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Feb. 10: The lode in the 55 east is 3 ft. wide, and as splendid a looking lode as can be seen anywhere; it is 3 ft. wide, almost like a cinder pile, containing a great deal of the green carbonate of copper, worth 3 tons per fathom; and, if this does not lead to a great body of copper ore, indications are no good. We have already driven this level 17 fms. through good orey ground. The lode in the rise above this level is looking well, worth 3 tons of copper ore, or 200*l.* per fm.; hence, seeing we have a lode in the 45 worth 1½ ton of copper ore per fathom, makes the prospects above this level (the 55) to be very good. From the bearing of the 55, and its underlie, we are at a loss to account for the lode in the 65, and we have to-day placed the men to strip down the north side on a branch, to see if [illegible] part be not in that direction. All the other places are looking precisely the same as we stated in our letter of Friday last.

FRANK MILLS.—J. Cornish, F. Cornish, Feb. 10: The lode in the 145 north has become disordered since our last report, and we think hove to the left hand; the ground, however, is very favourable for progress. In the 145 south end, on the east lode, the ground has become much more favourable for progress, and the lode is producing good stones of lead ore—saving work; this is a most promising end for an early improvement. In the 130 fm. level cross-cut east from the north end we are now passing through a large lode, consisting of white iron, quarts, and lead ore, but not enough of the latter to value; the ground is hard, and spare for progress. The west lode in the 84 north is yielding ¼ ton of lead ore per fathom, and we purpose to shortly rise and sink from this to the 72, for the double purpose of ventilation and cutting out stoping ground. All the stopes throughout the mine are yielding about the same quantity of ore as for some time past, and there is no alteration in any other tutwork bargain. The tribute department is also without any particular change to notice. We are making good progress with dressing, and everything is going on satisfactorily.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Feb. 6: We have extended the 82 cross-cut towards the lode 6 fms. 5 ft.; the ground in the present end is showing indications of being near the south capels of the lode. The lode in the 70, driving east from King's shaft, is improving in character, yielding 1 ton of ore per fathom. Nos. 1 and 2 stopes, going down in the bottom of the 70, are worth respectively 6 and 10 tons of good quality ore per fathom. The winze sinking below the 60 is down sufficiently deep until the drivage at the 70 is further in advance, which we purpose to push with all speed. To-day will be our monthly settings, particulars of which we will forward early in the coming week.

GREAT NORTH LAXEY.—R. Rowe, Feb. 2: In driving out the 110 or bottom level north the lode is 4 ft. wide, and to-day the end from being quite unproductive has begun to yield some good stones of lead; I, therefore, look for productive ground here very soon. The lode in the 96 end continues large and strong, quite 4 ft. wide, and worth about ½ ton of lead per fathom. The stopes in the roof of this level are worth 1 ton of lead per fathom. The 84 end driving north, and now under the old engine-shaft, continues promising; the lode is 3 feet wide, and worth close upon 1 ton of lead per fathom. The rise in the 60 south is worth 15 cwts. of lead per fathom. In the 27 end driving south the lode of late has changed its direction, but is again taking its regular course, now 6 ft. wide, and worth about ½ ton of lead per fathom.

GREAT RETALLACK.—G. R. Odgers, Feb. 6: Setting Report: No. 1 shaft to sink at the same price as before, the men having taken the lift; lode 20 inches wide, containing good lead. The rise above the 30 south, by four men, the month, at 90*s.* per fm.; lode 15 inches wide, worth 4 cwts. of lead per fathom, and very kindly in appearance. The 30 north, by two men and two boys, at 4*l.* per fm.;

lode 18 in. wide, and worth 3 cwts. of lead per fathom. The stope above this level, to two men, at 35s. per fm.; lode worth from 4 to 5 cwts. per fm. The 20 north, by four men and two boys, at 4l. 4s. per fm.; lode 20 in. wide, with good stones of lead, embedded in mundic and thereby indicating a bunch of lead under. A bargain to sink the No. 2 shaft, from the 40 to the 50, cut plat and barrow-road, fix two plunger-lifts, bring down the main-rod, and put in ladder-road, &c., for 185l.; if completed within six months to have a premium of 5l. The 40 south, to two men and two boys, at 35s. per fm.; of friable quartz, and good lumps of lead; this lode is presenting everything that one would expect for leading to a bunch of lead. The 40 north, to two men and two boys, at 50s. per fathom; lode worth 3 to 4 cwts. of lead. The stope above this level, to four men, at 2l. per fm.; lode worth 7 cwts. per fm. A pitch at 10s. in 1l., and to be paid 1s. 3d. in 1l. for any slivery work which they may meet.

— G. R. Odgers, J. Harris, Feb. 11: No. 1 Lode: The lode at the engine-shaft, sinking below the 30, is 2 ft. wide, producing good lead. The lode in the rise above the 30 south is 15 in. wide, worth from 3 to 4 cwts. of lead to the fathom. The lode in the 30 north is 15 in. wide, worth 3 cwts. of lead to the fathom. No lode has been taken down in the stope above this level since our last. The lode in the 30 north is 18 in. wide, containing good stones of silver-lead ore, embedded in mundic, and letting out a quantity of water.—No. 2 Lode: The men are busily engaged cutting plat and barrow-road in the 40, preparatory to sinking below. The lode in the 40 south is 15 in. wide, worth from 3 to 4 cwts. of lead to the fathom, with a most promising appearance. The lode in the 40 north is 2½ ft. wide, worth 3 cwts. of silver-lead to the fathom. The stope above this level will yield from 7 to 8 cwts. of lead to the fathom.

GREAT SOUTH CHIVERTON.—John Nancarrow, John George, Feb. 8: The following work was set to-day:—The 20 to drive east by six men, at 3l. 5s. per fathom; lode large, and promising for lead. The 30 to drive east by six men, at 10l. per fathom; this is to communicate with the shaft, which will soon be done. The 40 to drive east by three men and three boys, at 7l. per fathom; lode small. The 40 to drive west by two men, at 3l. per fathom; here we are driving over the shoot of lead. The 50 to drive west by four men and four boys, at 8l. per fathom; the lode contains a little lead, and looks exceedingly well, but we have not done much in the past week, owing to a breakage of the bucket-rod; it is now repaired, and we are in full course of driving. The 50 to drive east by two men, at 5l. per fathom; lode large. The water has increased with the late rains, but the engine keeps it very well.

GREAT SOUTH TOLGUS.—J. Daw, Feb. 10: We are forking the water very well; it is now about 3 fms. below the 125, and we hope with good speed to be able to go to work on the tin ground in the 140 next week.

GREAT WESTERN MINES.—Edward Rogers, Edmund Rogers, Feb. 10: Fisher's Lode: Thomas's engine-shaft is enlarged and timbered 12 fms. from surface, and good progress is being made. At the 10, below adit, we have driven south 2 fms., and commenced rising towards the shaft. The 40, east of the Pressure shaft, is driven into the elvan course, and is, therefore, suspended. At the 20, driving east of this shaft, the lode is 3 ft. wide, and passing through ground that will be taken away at a profit. At the adit level, driving west of Jones's shaft, the lode is 2 ft. wide, worth 2l. per fathom; this level is also opening profitable ground. At the 30 from surface, driving east of Annie's engine-shaft, the lode is 18 in. wide, and will just pay for driving.—Middle Lode: At the 20, driving west of Curtis's shaft, the lode is 4 ft. wide, worth 7l. per fm. At this level east we have communicated the rise to the winze sunk from the level above, and shall commence to drive the end so soon as we can clear the tinstone broken from the same. At the 7, driving east of Curtis's shaft, the lode is 1 ft. wide, worth 3l. per fathom.—Caunter Lode: In the winze sinking in bottom of the 7, below adit, the lode is 6 in. wide, worth 2l. 10s. per fathom. At the 17, from surface, we have just passed through a cross branch, which has disordered the lode. In our tribute department there are about 70 men employed, at tributes varying from 6s. 8d. to 15s. in 1l., at a standard of 60l. per ton.

GREAT WHEAL BADDERN.—R. Pryor, H. Tregoning, Feb. 6: Hill Brothers Engine-Shaft: The ground in the 75 cross-cut, driving towards the tin lode, is intermixed with tin capels and branches of spar crossing the end, which we believe to be very near the lode. In the 75 fm. level, west of cross-cut, on the lead lode, the ground continues much the same for driving; the lode in the end is about 5 ft. wide, producing mundic, flookan, spar, blende, and stones of silver-lead. The water has considerably increased at this point during the past week.

GWYDYR PARK.—W. Smyth, Feb. 9: At the shaft at Gwyn Lliflon the lode is still small, and the water increased in consequence of the late heavy rain. In the Vuchesias deep adit end the lode is about 18 in. wide, composed of spar, mundic, and blende, and showing nice stones of lead ore. It is also a little wetter than last reported.

HARWOOD.—W. Vipond, Feb. 6: There is no change in the level at Scar Head. In taking off the side of an old drift at Trough, I think we have found Mounce's vein, or, at any rate, a promising vein, with good mineral and nice samples of lead ore; the ground is easy, and I shall shortly set the men a bargain to drive north on the vein. We are still raising part ore at Trough, and the vein is increasing in size and looking altogether better; the altered appearance may be caused by being near to Richardson's vein, or being intersected by it, we cannot tell at present.

HINGSTON DOWN CONSOLS.—J. Richards, Feb. 11: Bailey's shaft continues to be sunk below the 140; the lode is 4½ feet wide, and yields a little ore. In a stope in the back of the 130, east of Bailey's shaft, the lode is worth 3 tons of ore, or 12l. per fathom. In the 85, east of Morris's shaft, the lode is 2 feet wide, composed of capel chiefly, with small strings of copper ore. In the 55, east of Morris's shaft, west of the eastern cross-cut, the lode is 4 feet wide, and yields saving work of copper ore. In Chenall's rise in the back of the 55, east of Morris's shaft, and east of the eastern cross-cut, the lode is 3 feet wide, and worth 1 ton of ore, or 3l. per fathom. In the adit level south the branches alluded to in the last report have been passed through, and the ground is again more favourable for driving.

LLYWERNOG.—J. Davis, Feb. 10: There is a gradual improvement in the value and character of the lode in the end of the 62 fm. level; it is now worth fully 10 cwts. of lead ore per fathom. There is still a very large quantity of water gushing out of the end, which I consider a good sign for further improvement; it, however, much retards our progress, still it is gradually getting much less.

MAES-Y-SAFN.—Feb. 10: The mine is in fork to the bottom levels at all the shafts, and we have commenced again to clear the sand, and if we have good speed we hope to get it all cleared up by the end of this week, except what is in Grosvenor's shaft, below the 350, or bottom level. In the past week we have not cut into any good lode in the levels, yet some of them are looking more kindly; and also the lode in the sump-winze, sinking below the 350, is looking more promising, and producing good stones of lead ore. The engines are working well.

MAUDLIN.—J. Tregay, Feb. 6: In the rise in back of the deep adit east the lode will produce 1½ ton of copper ore per fathom. In this level east we have been shooting in south after some branches gone off in that direction, and find that they produce good stones of yellow copper ore; we purpose prosecuting this trial further, as there may probably be still more productive parts of the great lode towards its footwall than any we have yet seen.

MINERA UNION.—Wm. T. Harris, Feb. 11: Low's Shaft: The lode in the 60 yard level north is 2½ ft. wide, worth 15 cwts. of lead ore per fathom, and very promising. The ground in the cross-cut consists of white limestone; it is favourable for progress and congenial for lead.—Boundary Shaft: The ground in the 60 yard level north is easy for progress, and the character the same as last reported. The pitch sn the bottom of this level is worth 10 cwts. of lead per fathom.—Brabner's Shaft: The ground in the cross-cut at the 80 yard level consists of black limestone and shale. The pitch in the back of this level south is worth 15 cwts. of lead per fm.—Flue Shaft: The pitch in the bottom of the 40 yard level north has improved, now worth 15 cwts. of lead per fathom. The ground in the big cross-cut is the same as last reported.

NEW CLIFFORD.—J. Michell, Feb. 11: The cross-cut north is being pushed on with all speed; the stratum is a beautiful light killas. We are expecting daily to intersect Weston's lode; at present we are driving 6 feet per week.

NEW CROW HILL.—T. Trelease, A. Kent, Feb. 9: At the engine-shaft we have fixed bearers and cistern, and almost completed fixing the plunger-lift. We expect to put it to work by to-morrow morning. This fixture will be a great advantage in the way of pumping. Our pitches in the 35 are looking rather poor at present.—Wheal Louisa: In the 75 fathom level cross-cut we are making good progress towards the lode, by pushing it on as fast as possible. In the 60 fathom level end east we have no change to report, as the men have been carpentering for some days past.

NEW GREAT CONSOLS.—Richard Pryor, Thos. Bennetts, Richard Trathen, Feb. 8: All the tutwork bargains throughout the mine continue just the same as when last reported on. Ellis's engine-shaft men are getting on well with their contract, and all the pitwork is sent to surface. Saturday next being our pay and setting, a full and detailed report shall be sent you.

NEW WHEAL TOWAN.—R. Pryor, Feb. 10: The lode in the stopes in back of the adit level is 2 ft. wide, and worth 1½ ton of copper ore per fathom; we hope soon to be able to cut in south in two or three places east of these stopes, where the lode will be found all in whole ground from 50 to 50 fms. in length, and if it turns out as well as we have a right to expect we shall be able to set several tribute pitches.

NORTH CROFTY.—J. Vivian and Son, Wm. Thomas, jun., Feb. 11: In the 196, west of Petherick's shaft, a considerable improvement has taken place in the lode, having become productive of copper ore of good quality, of which it will yield about 3 tons per fathom, accompanied by a little tin, making it worth altogether 22l. per fathom. In the 170, west of ditto, the lode is worth 12l. per fathom. The rise over the 70 is worth 16l. per fathom for tin. In the 196, east of Praed's shaft, we have commenced cutting north and south, in order to prove beyond a doubt whether any of the rich tin lode which we had in the levels above may be standing as yet undiscovered at this level. There is no other change. We anticipate meeting the expenditure at the forthcoming account.

NORTH DOWNS.—James Williams, Feb. 9: The 85, west of King's engine-shaft, is progressing slowly, in consequence of so much water; but, as the lode is large, we are almost daily looking forward for a change for the better. In the 60, west from point of horse, the lode is over 2 ft. wide, spotted with ore—a kindly lode. The 40 west is at present poor. The rise in back of the 40 is worth 6l. per fathom. The lode in the sump-winze is not so large as when last reported on; it is now worth 30l. per fathom. The stopes in back of this level are worth 9l. per fm. All other places are without alteration.

NORTH JANE.—J. Rowe, Feb. 11: The lode in Leeds' engine-shaft, sinking below the 36 fm. level, is 6 feet wide, worth 6 tons of mundic per fathom, and stamping work for tin. The lode, I am fully persuaded, will make large quantities of tin at deeper levels. All features connected with it show that we are not deep enough for the good tin ground. We have very little water in the shaft; this is strong proof that we are sinking on the main lode, which is producing 30 tons of tin per month in Wheal Jane Mine. We have six men sinking this shaft 13 feet long, at 18l. per fathom, and the same is now down about 4 fathoms below the 36 fm. level. The ground is favourable for driving in the 36 fm. level east. We are pushing on the end towards the cross-course; driving at 5l. per fathom. There is no other change.

NORTH POOL.—J. Vivian and Son, Feb. 11: In Ballarat shaft, sinking under the 40, the lode is increasing in size and improving in character, and produces a little copper ore, which appears to be increasing with increased depth. In a month more we shall commence driving the 50 fathom level, when we calculate on making discoveries of value. We have just sold 14 tons of good quality copper ore.

NORTH RETALLACK.—G. R. Odgers, J. Harris, Feb. 11: The water has again risen to the 10, and, consequently, we have not yet been able to resume operations.

OLD GUNNISLAKE.—F. Phillips, Feb. 10: No change to notice in Parker's shaft since my last. In the 48 west the ground continues favourable for driving. The men are about to cut through the lode.

PEDN-AN-DREA UNITED.—Wm. Tregay, J. Thomas, Feb. 6: Sump: The water has been into the bottom, or 140 fm. level, for the greater part of the week, in consequence of the recent heavy influx, and of one of the boilers of the pumping engine having become so leaky that it had to be turned idle, and its place supplied by another boiler, which we have recently put into thorough repair. The water is new at the 130, and we are again gaining on it; we expect, if no unforseen circumstance occurs, to be in fork by Tuesday morning. The lode in the 130 fm. level west end is worth 8l. per fathom. No progress has been made in the 120 fm. level west winze, in consequence of the water in the bottom. The lode in the 120 east end is worth 12l. per fathom. The 120 fm. level north cross-cut is now cleared from attle, and the ground pretty nearly secured; we expect to commence driving on Monday. There is no change in the 100 fathom level east rise; lode producing a little tin, and the ground favourable for rising. The tinstone in the 68 east is of fair quality, and comes away freely.—Cobbler's: The lode in the 120 fm. level end west, on Martin's lode, is worth 5l. per fm., and very promising for improvement. The 90 west, on the north lode, is worth 75l. per fathom. In the back of the end the lode is worth 100l. per fathom; but we cannot rise here until the driving is further advanced.—North Shaft, North Mine: The lode in the bottom of this shaft, sinking below the 55, is worth 20l. per fathom. The lode in the 55 west is worth 35l. per fathom. In cross-cutting the lode from the old men's level near the west end, 22 fms. west of shaft, and 12 fms. further west than our former cross-cut, we have this week interscected a branch, or leader part of the lode, which is worth for tin 20l. per fathom, more lode being still further north, which we are cross-cutting. The pitches in the 55, 47, and in the upper levels, are looking well, and are producing their full quantities of tin.

PENHALE UNITED.—R. Pryor, H. Bennetts, J. Pryor, Feb. 10: The lode in the 90 fm. level, driving north of Phillips's engine-shaft, is worth 8 cwts. of lead per fm.; and in this level, driving south of shaft, the lode is disordered by a branch of spar which crossed the end.—Hall's Shaft: The lode in the 90 fathom level, driving north of shaft, is worth 6 cwts. of lead per fathom. The shaftmen are still engaged in clearing and timbering this level south of shaft, but have not as yet reached the end. The lode in the 80 fm. level, north of shaft, still continues to be worth 1 ton of lead per fm., and in the winze sinking below this level the lode is worth 4 cwts. of lead per fm. Phillips's engine-shaft men are getting on well with their contract. The plunger bottom is sent down and fixed, and the men are engaged in sending down main rods, &c. There is no change to notice in any other part of the mine since our last.

PENHALE WHEAL VOR.—Wm. H. Martin, Feb. 10: The engine-shaft men are making satisfactory progress in sinking below the 94, the lode produces more mundic, and it is still rapidly underlying towards the north lode.—Penhale Lode: Ritchie's shaftmen have this week made a little better progress in sinking below the 60, but the lode is still disordered by the influence of the spar.

PENHALLS.—S. Bennetts, W. Higgins, Feb. 6: The ground in the diagonal shaft, below the 70, continues favourable for sinking. In the 70 ends, both east and west, no lode has been broken since setting-day. The 60, south of cross-cut east, is without change. In the 60 west the lode is at present small, and not very productive. The 50 east is worth 4l. per fm. The 55 east, on the new lode, is worth 6l. per fm.; and the same level west, 8l. The 50 north cross-cut is very wet, and a lode just passed through on the east side, about 2 ft. wide, containing some good tinstuff; this lode is not seen on the west side as yet. The 45 east is worth 8l. per fm. The Pink lode, in the 44 east, is producing saving work; and the 40 west, on same lode, is in a portion of the cross-course, and plenty of water issuing from it.—Pink Mine: The lode in the Shop shaft, below the 30, is improved, and now worth 12l. per fm. The stope in the back of the 30 west is worth 12l. per fm.; and the 20 west end, 10l. to 12l. per fm.

PRINCE OF WALES.—J. Gifford, Wm. Gifford, Feb. 11: In the 65 east the lode is taken down home close to the end, which is 2½ ft. wide, worth full 20l. per fathom, and every prospect of further improvement. In the 65 west we are driving by the side of the lode; ground favourable, and very congenial for copper ore. In the 55 fm. level cross-cut north we have cut through a caunter branch 1½ ft. wide, principally capel and quartz. We have resumed driving the 55 fm. level west, and expect to meet with the junction of the caunter and main lode in about 8 fathoms. In the 45 west we are driving by the side of the lode. No. 1 stope, in back of the 55 east, is worth 20l. per fathom. No. 2 stope, in back of the 55 east, is worth 10l. per fathom. Two stopes in the back of the 55 west are worth on an average 8l. per fathom each. The stope in the back of the 45 west is worth 10l. per fathom. We are progressing with the sinking of Watson's shaft by a full pare of men, and with all possible speed.

PROSPER UNITED.—J. Nicholls, J. Hall, Feb. 10: Fair progress is being made in sinking Hand's engine-shaft below the 100. There has not been any lode taken down in the 100 west since last report. The two stopes in the back of the 100 west are each worth about 15l. per fm. The lode in the 100 east is 2 ft. wide, worth 6l. per fm. for tin. The stope in the back of this level is worth 9l. per fathom. The 90 west is without change to remark on. The 80 west, on Pope's lode, is yielding occasional stones of tin. The 80 west, on Gwallon lode, is unproductive. The stopes in the back of this level are worth about 10l. per fathom. The 70 west, on Pope's lode, is worth 5l. per fathom. The stope in this level is worth 7l. per fm. The stope in the bottom of the 70 east is worth 5l. per fathom. The 60 winze, on Gwallon lode, is worth 10l. per fathom; we expect to communicate this to the 80 in the course of a few days. The 70, east of Louisa's, is worth 5l. per fathom. The 60 stope, on Moor lode, is worth 8l. per fathom. The 40 east, on Moor lode, is unproductive. The winze in bottom of this level is worth 10l. per fathom for tin. We have commenced a cross-cut north from the 80, east of Hosking's, to prove the ground. The 70 east is worth about 4l. per fm. No change to remark in the tribute department.

REDMOOR.—T. Taylor, Feb. 11: There is no particular change since last week. We are driving the 25 east by the side of the lode, towards the lead course; as I have said before, I do not think this the main part of the lode. In the 15 east the footwall part of the lode does not contain so much mundic, jack, and wolfram; the end west is worth about 8l. per fathom. We are getting on with dressing a batch for sale next week as fast as possible.

ROARING WATER.—H. Thomas, Feb. 9: In a day or two after I last wrote you the caunter was cut driving west on Grady's lode at the 45 fm. level; its size is about 2 ft. wide, composed of flookan, gossan, friable quartz, and detached stones of rich ore, which augurs well for a mineralised lode. On the western side of the caunter we are driving south, and now about 10 ft. from the point of intersection. I expect we shall have to drive from 2 to 3 fms. more before we shall meet the western side of the lode; from the promising appearance of the caunter, I have every reason to think when the lode is cut it will prove satisfactory. The lode in the 45 end west, on Orchard lode, is without change; it is spotted with yellow ore. The 45 fathom level end east, on the Orchard lode is mixed up with ore throughout. By to-morrow's mail I intend sending samples from the Orchard lode east and west, which will enable you to judge of the character of the ore.

SNAEFELL.—H. James, Feb. 8: Since my last we have completed the shaft to the 74, and have driven off the ends north and south about 5 ft.; the lode is from 3 to 4 ft. wide, but unproductive. We shall now drive sufficient for the lodge, and make the same, and then resume the sinking with all the speed possible. In the 60 north the lode is occasionally producing stones of lead and blende, but nothing to value. The same may be said of the 40 north. The 40 sump is down about 12 fms.; the lode here, in the sinking this month, has been poor for mineral. It appears that this bunch of ore has again taken a further dip north towards the cross lode seen in the river some distance to the north of us. The 20 fathom level stopes are still producing some good stuff for lead and blende. We are going on with the dressing with all the speed possible. All the machinery is in good order. The wheel now having a full supply of water does the grinding and the drawing of the stuff with the pumping remarkably well.

SOUTH TREVENNA.—W. H. Willcock, Feb. 10: I have been occupied with several of the men for some days in making good our weir head, putting in new launders, and securing our leat, the late heavy floods having caused much damage. This interfered with the forking of the water and the stamping, causing delay, but all is now in good working order. The stamps are going well. The pare of men working east from the winze have a fine lode 6 ft. wide, more peachy than formerly, and rich work. They are carrying the lode only, which is very hard, requiring powder to remove every portion; it is like stamping up steel. Our rich leader is going off fast from the lode; the horse of killas between it and the lode gradually increasing, and I am of opinion it is only a large dropper from a lode further north, and hope it will make a greater lode when they come together further west. I purpose putting on a pare of men on this leader as soon as a few more fathoms of ground are spent. I have a fresh pare of men driving upon the lode from our bottom level, 10 to 12 fms. under the winze pare, and I fully expect to have the lode as rich there as above; this will also give us good backs. We shall be able to keep the stamps fully employed and accumulate a pile of good work at surface. We are now progressing very well on the floors, and I am preparing another batch of tin for the smelters, and hope gradually to increase the returns and have a splendid mine.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, Wm. Bennetts, Feb. 6: The men are pushing on the two cross-cuts at the 42 as vigorously as they possibly can, but they have not met with any change since our setting report.

ST. JUST AMALGAMATED.—R. Pryor, Wm. White, R. Wearne, Feb. 9: Saturday last being our pay and setting, the following bargains were set:—The 62 to drive south of Phillip's engine-shaft, by four men, at 2l. 10s. per fathom; the lode at present is large, but of no value. Our object in driving this end is to cut Davies's lode, which we expect to meet with shortly; this is an important point, as large quantities of tin have been returned from the levels above.—Saveall's Lode: The 110 to drive east of engine-shaft, by two men, at 5l. 10s. per fathom; lode worth 6l. per fathom. The 100 to drive east of shaft, by two men, at 2l. 15s. per fathom; lode worth 4l. per fathom. This level to drive west of shaft, by two men, at 8l. per fathom; lode worth 6l. per fathom. The 90 to drive west of shaft by four men, at 6l. 10s. per fathom; lode worth 9l. per fathom.—Owl Lode: The 40 to drive north of Reddipper shaft, by two men, at 5l. 5s. per fathom; lode worth 6l. per fathom. The 20 to drive north of ditto, by two men, at 7l. per fathom; lode worth 6l. per fathom. The 10 to drive north by two men, at 6l. per fathom; lode worth 7l. per fathom. The 10 to drive north, on branch, by two men, at 4l. 7s. 6d.; lode worth 5l. per fathom.—Wheal Widden Lode: The 20 to drive east of Reddipper shaft, by two men, at 3l. 5s. per fathom; lode worth 4l. per fathom. The 20 to drive west of cross-cut, by two men, at 4l. per fathom; lode worth 6l. per fathom. The 20 to drive east of Wheal Widden shaft, on Wheal Dower Lode, by two men, at 2l. 10s. per fm.; lode worth 3l. per fathom.—Pryor's Lode: The 62 to drive west of cross-cut, by two men, at 5l. per fathom; lode at present disordered, and of no value. The winze to sink below the 62, by three men, at 3l. per fathom; lode worth 5l. per fathom. The 76 fm. level cross-cut to drive south of Saveall's lode, by two men, at 5l. per fathom; we expect to cut the lode in this cross-cut in about four weeks from this time. We also set 45 tribute pitches to 107 men, tributes varying from 3l. to 15s. in 1l. Our pay and setting went off very satisfactorily. Our sale of tin was 17 tons 13 cwts. 3 qrs. 8 lbs., and realised 1164l. 19s.

TAMAR VALLEY SILVER-LEAD.—J. Goldsworthy, Feb. 11: In the 57 fm. level cross-cut, driving east towards the Tamar Valley lode, the stratum is highly charged with quartz, and contains silver-lead ore. The lode in the 57, driving south, is 5 feet wide, composed of horn-spar, fluor-spar, mundic, and silver-lead—a very kindly lode. The tributers are working well, and from present appearances will earn good wages.

TRESAVEAN AND TRETHARRUP.—Joseph Odgers, Feb. 8: Monthly Report: The deep adit has been driven west since last report 2 fms. 5 ft. 6 in.; the lode is 18 in. wide, spotted with copper ore, driving by three men and three boys, at 7l. per fathom. The 12 fathom level has been extended 2 fms. 4 ft. 3 in.; the lode is 16 in. wide, composed of spar, gossan, and prian, with occasional squats of black copper, driving by two men and two boys, at 5l. per fathom. I have taken the men from the shallow adit for the present, and put them to cut a plat, which is very much needed at the deep adit. We shall sample on the 17th inst. 35 tons of copper ore.

VIGRA AND CLOGAU.—W. J. Cooke, Feb. 11: St. David's Lode, No. 2 Mine: The lode in the breast of No. 6 level, driving east towards the great cross-course, is little altered since last reported on. The lode in the stope in back of this level has opened out to about 5 ft., and has improved in appearance, but no visible gold has been seen here lately. The stope west from No. 6 is about 7 ft. wide, and produces some visible gold. Some stones containing visible gold are daily obtained in picking over the stuff. The stuff from the No. 6 workings is being trammed down to Vigra. At the reduction works 11 heads of stamps are at work. By to-day's post I forward a bar of gold, weighing 37 ozs. 19 dwts. 12 grs. [The above quantity of gold has been received at the offices.]

WEST CARADON.—Wm. Johns, N. Richards, Feb. 9: In the 170 fm. level cross-cut, north of Allen's lode, a little more water is oozing from the end, which is generally the case when nearing a lode or branch. The lode in the same level east, on the south part of Allen's lode, is about 1½ foot wide, producing saving work; this end is looking very kindly. Two stopes in the back of the 104 on Dunstan's lode, are each producing about 2 tons of copper ore per fathom. The 17 west, on the north part of Gilpin's lode, is much the same as for some time past. At Marina's shaft we have fixed a drawing-lift from the 20 to the 30, cased and divided the shaft, put in penthouse, &c. Nine men are now engaged sinking below this level, at 18l. per fathom, and to force this down as quickly as possible the men are working late Saturday evenings and begin early Monday mornings. The lode in the 30, east of cross-cut, and north of shaft, is still holding on just as last reported, producing over 1 ton of copper ore per fathom; we cannot but again repeat that this lode looks very promising at such a shallow depth.

WEST DRAKE WALLS.—T. Gregory, Feb. 11: In the 40, west of cross-cut, we are driving under the lode for dispatch, the ground being favourable. We have no change to notice in the 40 fm. level cross-cut, south of engine-shaft, since last report.

WEST GODOLPHIN.—J. Vivian and Son, J. Pope, jun., Feb. 11: In the 10 fathom level, south-east of Pressure shaft, we are driving on the eastern part of the lode, which is worth 10l. per fm. We have completed the necessary preparations for sinking the pressure shaft below the 10 fm. level, which operation will be at once commenced, the lode being at this point 9 ft. wide, and worth about 30l. per fm.; the price for sinking will be about 7l. 10s. per fm., so that we shall not be long in getting down to the 20 fm. level, which will be 46 fms. from surface. The water has been going down rapidly in Paull's shaft, but the recent rains have again brought it to a standstill. A few days of dry weather will, however, enable us to resume working the valuable tin stopes in this part of the mine. Without the aid of these, however, we sold on the 4th inst. 5 tons 6 cwts. 1 qr. 11 lbs. of black tin, being the produce of four weeks. [For particulars, see "Tin Sales" in this Journal.] Our next sale will be considerably more, and we anticipate will realise 500l.

WEST TREMAYNE.—S. Roberts, Feb. 9: The lode in the engine-shaft still improves in size and nature; it is now 14 in. wide, with occasional good stones of copper ore. In the 32 west there is no change since last week. In the rise, which is up 10 ft., the lode is 9 in. wide, composed of spar, mundic, and copper ore. In the 20 west, on south lode, there has been nothing since last week.

WEST WHEAL KITTY.—J. Vivian, Feb. 11: In the middle west we are driving on the south side of the lode for the sake of quicker dispatch, the lode being very wet and spare to drive through. The stopes in the back and side of the level following the end, and worth about 20l. per fathom for tin, being carried, which is about 8 feet wide, we calculate on sending to the smelting-house in the early part of the coming month about 2 tons of tin.

WEST WHEAL TOLGUS.—Feb. 10: We have drained the water to the 40, and deep enough to enable us to change the top-clack, and pack the pole, but thus far we have not been so fortunate as to fork deep enough to look at the bottom clack; this clack seems to be very good so far. We have had the water drained deep enough within 2 ft. to change it three or four times, but having so many little mishaps with the engine and in the shaft has prevented us from doing it. The water is now, through a little stoppage of the engine this morning for one hour, risen to the back of the 40 fm. level. We are doing all we can to fork it, and hope shortly to see the bottom of the 40. The sinking of Richard's shaft is progressing favourably. The new part of the adit level is nearly completed, and the men are wheeling in staff to fill up the excavation made by the side of the new adit.

WHEAL AGAR.—E. Rogers, Feb. 10: Not yet having finished cutting the plats in either shaft, but which is being done as fast as is possible, there is nothing new to report upon.

WHEAL BULLER.—J. Inch, J. Brown, Feb. 10: In Hocking's shaft, sinking under the 92, the lode is 6 feet wide, producing good stones of copper ore and tin, worth 12l. per fathom. In the 80 west, on Stevens's lode, the striping down on the north part is poor for tin. The 70 driving east, on the north lode, is producing some good work for tin. A stope in the back of this level is worth for tin 9l. per fathom; a stope under this level, west of the cross-course, is worth 15l. per fathom. No. 2 stope, under this level, is worth 12l. per fathom. A stope under the 60, east of Knuckey's winze, is worth 10l. per fathom. A stope under the 60, west of Bartle's winze, is worth 10l. per fathom. The 92, driving east of Stevens's shaft, is hard and unproductive. The 60 driving east, on the north branch, is producing 1 ton of copper ore per fathom.—Kistle's Shaft: The 50, driving south through the horse, is producing good work for tin, and looking very kindly; there is a large quantity of tinstuff to be taken away at this point. There is nothing new in any other part of the mine. We are getting on as fast as possible with the dressing of the next batch of tin. Our machinery and pitwork are working well.

WHEAL COURTENAY.—J. Gifford, Feb. 9: In the deep adit west the lode in the present end is small and poor, and the ground favourable for driving.

WHEAL GRENVILLE.—G. R. Odger, W. Bennetts, Feb. 6: The lode at the 140 west is 2 ft. wide, worth 3l. per fm. The lode at the 130 west is 2½ ft. wide, of quartz, and a little tin stamping work. The lode in the 120 west is 3 ft. wide, of peach, &c., with some good tin, worth 5l. per fm. There is no change at the 100 east. The lode at the 90 east is worth 12l. per fm. The men are getting on very well with the 90 cross-cut north, which is in a kind of chloritic granite, where we find good strings or veins of tin, and letting out water freely; this is a most important point. The lode at the 80, west from the new shaft, is 3 feet wide, worth 7l. per fm. for tin. The lode at the 66 east, from the north shaft, is 15 in. wide, and opening good tribute ground. The lode in the 66, west from the new shaft, is 2 ft. wide, worth for tin 6l. per fm. The lode in the 66, west from the north shaft, is 18 in. wide, and worth for tin 7l. per fm. The tributers are working vigorously.

— G. R. Odgers, W. Bennetts, Feb. 11: The lode in the 66, west from the north shaft, is 2 ft. wide, and worth 10l. to 12l. per fm.—a good lode. In the north cross-cut in the 90 fm. level we are continually meeting with branches containing veins of tin dipping north, embedded in a most congenial granite; we, therefore, have a good opinion of intersecting a productive lode here.

WHEAL KITTY (St. Agnes).—S. Davey, W. Polkinghorne, Feb. 6: The lode in the 82, driving west of Holgate's shaft, is worth for tin 8l. per fathom.—New Shaft—Pryor's Lode: In this shaft, sinking below the 94, the ground is a little easier. The lode in the 94, driving west of shaft, is 2½ ft. wide, and worth for tin 21l. per fathom. In the 94, driving east of shaft, the lode is worth for tin 13l. per fathom. In the 82, driving west of shaft, the lode is 2⅓ feet wide, and worth for tin 13l. per fathom, with a good appearance. Nothing worthy of remark has taken place in the 82, east of shaft, during the week. In the winze sinking below the 82, west of shaft, the lode is worth for tin 14l. per fathom. In the 65, west of the shaft, no lode has been taken up during the week.—Caunter Lode: In the 82, driving north of shaft, the lode is 3 feet wide, and worth for tin 12l. per fathom. In the 44, driving east of the cross-cut, north of Pryor's, the branch is producing good saving work for tin.

WHEAL TREVENNA.—W. H. Willcock, Feb. 10: We are still pushing on the drivage of the cross-cut north to intersect the main tin lode, and about a week back we cut through another beautiful lode, about 18 in. wide, highly mineralised, carrying quartz and mundic, but not tin sufficient to save. It will not take us long to reach the tin lode; the ground is easier, and more speed will be made. I am dressing up a small batch of tin for sale.

WHEAL UNY.—S. Coade, M. Rogers, Feb. 6: The water has risen this week 6 ft., and we cannot fork until the water decreases. The steam-whim is in good working order again, and has been working since Monday last, and drawing stuff, and keeping on the stamps in full work. The ends and stopes are of the same value as reported last week.

NORTH LEVANT.

I again call the attention of the public to the property called the North Levant Mine. The progress of the operations verifies all the predictions which I have made with respect to the richness and extent of the lodes. The neighbourhood of St. Just has been at all times famous for its mines. They have been the best and the most remunerative of any in the whole Duchy of Cornwall, and the North Levant is, perhaps, the most promising of any ever worked there. The ore is plentiful and rich in quality, and the whole of the people in the neighbourhood are looking forward to its paying a dividend upon the shares. They, in fact, feel that the success of the undertaking must have the effect of giving a fresh stimulus to mining adventure generally, and so attract to Cornwall a large share of that capital which is at present lying dormant in the London banks, as to introduce a new era in the history of British mining. It has been visited by the most competent mining engineers in the country, and among them there is but one opinion with regard to its extraordinary value. The report which I made of the mine after my visit to it in the commencement of the past year has been fully confirmed by those who have since examined it, and assayed the value of its ores. I felt so convinced of its proving a remunerative concern that I strongly recommended it to my friends, and so proved my sincerity in my own anticipations that it would prove a permanently paying concern. The shares which were then to be had for 5l. are now quoted at from 11l. to 11l. 10s.—in other words, the share capital of the company, which is regulated on the cost-book principle, has more than doubled in value—and yet it is now scarcely possible to obtain them, so firmly are they held. They will have to go to a much higher figure before those who now possess them will be content to balance the premium against the prospect of a dividend, and, striking a balance in favour of the former, feel ready to dispose of them. Another circumstance which instances great confidence in the North Levant Mine is the high character of Messrs. Higgs and Son, of Penzance, who are its managers and pursers. These gentlemen are well known on the Mining Exchange for their high principle, integrity, and great practical knowledge of mining, so that, while they give the concern the sanction of their high name—and they will only do so as long as they feel that the representations which are made about it are based upon truth—there is no fear of the shares receding in value. On the whole, then, the shareholders are to be congratulated upon their prospects, and the time may come when a North Levant share will be as valuable as a New River share—a handsome fortune for any man to leave to his family.

— From Y. CHRISTIAN, 6, Bond-court, Mansion House, E.C.

Died,—We have to record the death of Captain JOSEPH PHILLIPS NICHOLLS, who died at Christow, on Feb. 5, aged 54. Deceased had been for a period of 16 years the principal agent of the Exmouth, Frank Mills, and other mines in the Christow district, and was much respected by his employers and all who knew him, for his uprightness of conduct as a man, and his ability as a miner. The funeral took place at Newton St. Cyres, near Exeter, on the 10th instant, and was attended by a large number of those who have for a long time known and respected him.

On Monday, at the early age of 37, Mr. JOHN FRANCIS BASSET, of Tehidy Park. As the lord of a most extensive mining property, Mr, Basset

was well known for his liberality and justice, and his loss will be deeply felt by a large number of acquaintances and friends.

CHONTALES COMPANY.—Letters, apparently written by the direction and authority of the board, but without their sanction or knowledge, have been extensively circulated among the shareholders during the past week. It appears necessary to caution shareholders against these effusions, and to recommend a firm and united determination to carry the company through. The fact that, notwithstanding all mistakes and delays, there has already been sold from the company's mines 21,000*l.* worth of gold, sufficiently attests the probable value of the property; while the advices just received of a remittance of 534 ozs. of gold, and that matters are progressing satisfactorily, should afford the best encouragement for the future. There is little doubt of the ultimate success of the undertaking, if the shareholders come forward with spirit to support the directors.

The advices received this day by the regular mail confirm those received, *via* New York, Feb. 10. The remittance of gold is 534½ ozs., obtained from 1629 tons of stuff, average 6½ dwts. per ton. The mines are being opened out with all speed, in the hope of further improvement. The health of the establishment continues exceedingly good. The reports appear in another column.

Letters received by this West India mail state that the Commissioner entrusted with the negociations for a transfer of some millions of acres of land from the Nicaraguan Government to the Mosquito Land Security holders was, by last advices, about to proceed to Managua, the capital of the Republic.

AFRICAN MINING.—About 230 tons of copper ore were shipped from Table Bay during November, 1868; should a reduction in wharfage dues be made, it is expected that the local copper company will in future ship all their ores from Table Bay instead of Hondeklip Bay. Mr. C. J. Wollaston, general manager of the Cape of Good Hope Telegraph Company, has returned to England for a short time. Mr. Wollaston brings with him several specimens of lead, silver, and copper ore, which have been dug from the Pomona mines and other spots in which he has an interest. The samples will be submitted to the public, with a view to the formation of a company to work the bearings from which they come. All the lead ores are stated to be argentiferous, some of them to an unusual extent. Mr. Wollaston also aims at an exploration of the diamond yielding territory on both sides of the Orange River.

LEAD MINING IN CARDIGANSHIRE—THE BRYNYSTWITH MINE.—The development of this property continues to progress in a satisfactory manner, while the prospects presented at the various points of operation materially improve as the respective works progress. An eminent authority, who has been practically acquainted with the successful Lisburne Mines and its neighbours for a period exceeding 12 years, and who, moreover, has no interest, directly or otherwise, in Brynystwith, states that, having known this property for so long a time, he naturally feels interested in anything likely to benefit that celebrated neighbourhood. He expresses a confident opinion that if Brynystwith is fairly and fully developed it will prove a splendid success. The mine is described as unquestionably good, and one that can be easily and economically explored, requiring no outlay to pump water, while there is a never-failing supply at surface for all purposes. After referring to the large extent of the sett, he states that he shall look forward to it opening a great mine, especially eastward, as by driving in that direction the explorations will be brought into a line with the Lisburne Mines. Another important feature is that, as a rule, lodes in that district having a north underlie make rich bunches of ore shallow, consequently the extension of the deep adit on the course of the lodes cannot fail to open out ground that will take many years to remove—that is, without incurring the expense of sinking. As this is the best lead mining district this authority has ever visited, he fully believes that Brynystwith will not form an exception to the general success attending the development of the surrounding mines.

MINING IN THE CHIVERTON DISTRICT—NEW CHIVERTON CONSOLS.—This property is opening up in a manner at least as promising as any in this now famed locality. The stopes in the back of the adit level, on the lead lode, are yielding large quantities of lead and blende, and the rise on the tin lode continues to improve. There was sampled last week 17 tons of blende and more than 1 ton of lead. It is stated that considerable attention is being directed to the property by parties in the immediate locality. There can be no question that if the mine continues to open out as satisfactorily as at the present time, it will not be long before its shares will command increased attention.

NORTH LEVANT.—This mine continues to improve, and the prospects are very encouraging. They are raising good quality tin, and sales are increasing. The adventurers in this sett will now be rewarded for their patience and outlay, as a dividend will be declared at the meeting to be held on the first or second week in March.

CWM DWYFOR COPPER AND SILVER-LEAD MINES.—The agent at the mines writes, under date Feb. 8:—"The top tunnel is driven across two lodes, and the third is opened to surface, from which a large quantity of copper ore has been worked out and carried away. We are now driving the tunnel east on the third lode, where we get good copper ore, and there is every sign of a large body of solid ore below, which can be worked through the lower tunnel; there is now a better show of copper than ever I saw. The floors are put into good order, and we have several tons of ore carried ready for crushing. I have had some applications for shares from working men, if I can get them." As soon as the 12 fm. level gets under the workings above mentioned, copper ore, equal to that produced in the neighbouring mines, may be expected to be got in large quantities. When copper producing 15 and 16 per cent. and upwards can be got out of our own native mountains by such inexpensive workings as in this mine, and from an altitude commencing at 300 yards above the valley, it seems marvellous that there should be any lack of capital or enterprise for the full development of these native treasures. A better and brighter day seems dawning upon these important industries of our own country, and it may be hoped that we shall not again hear of the expatriation of our mining population for lack of employment at home, or of the investment of English capital in wild foreign speculations, where personal oversight is impossible, and where that salutary influence, exercised in this country by periodical inspection can scarcely, if ever, be obtained. Money invested in British mines is invested in British labour, circulates in our own community, produces its equivalent profits, and contributes to the comfort and well-being of our own people; while in the great majority of foreign speculations no return of any kind, save the misery of prolonged expectation and hope deferred, ever comes. The present promises to be a great year for mining, especially Welsh mining, both in North and South Wales. In South Wales there are, undoubtedly, many exceedingly rich and valuable lead mines, and some in North Wales well deserving attention; and there are in North Wales, probably, some of the richest copper mines ever opened in this country, but the surface has merely been scratched, the greatest depth attained in any of them being only 70 fms. below the water level, where the ores become more dense and rich. Above this insignificant depth, and at the smallest possible expense, tens of thousands of tons of copper ore of high quality have been mined, and hundreds of thousands of pounds have been realised for the same. Compare these results with the splendid outlay necessary to prosecute deep Cornish mines with poor ores, or distant and doubtful foreign ones, and there can be no question in any practical mind as to the direction towards which, in the future, mining capital will gravitate.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 178,410*l.*, which is represented by a corresponding decrease in the coin and bullion on the other side of the account. In the BANKING DEPARTMENT there is shown a decrease in the "other deposits" of 243,808*l.*; and in the "seven day and other bills" of 16,883*l.*: together, 260,691*l.*; and increase in the "public deposits" of 157,820*l.*; and in the "rest" of 4262*l.*: together, 162,089*l.*—98,602*l.* On the other side of the account there is a decrease in the "Government securities" of 173*l.*; and in the "other securities" of 484,769*l.*—484,942*l.*, showing an increase in the total reserve of 386,340*l.*

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Mr. Warington Smyth's Lectures at the Royal School of Mines—Boring by Machinery in Australia—The Haulage of Coal: Abstract of Report of the Tail-Rope Committee, appointed by the North of England Institute of Mining Engineers—The Heaton Process of Steel Manufacture (*illustrated*)—Improvements in Water-Wheels—Consumption of Coal on Railways—Holmes's Improved Stone-Dressing Machinery (*illustrated*)—Foreign Mining and Metallurgy—New and Cheap Mode of Extracting Gold from Quartz, &c.

*** With last week's Journal a SUPPLEMENTAL SHEET was given, which contained—Mr. Warington Smyth's Lectures at the Royal School of Mines—Geological Society of London—Institution of Civil Engineers—Society of Engineers—Craddock's Hot-Air Engine—Calcining Furnaces—Foreign Mining and Metallurgy—Foreign Mine Reports—Spon's Dictionary of Engineering—Steam, Air, and Gas Engines—Palæontological Researches—Commercial Retropect for the past Year, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, FEB. 12, 1869.

COPPER.	£ s. d.	£ s. d.
Best selected, p. ton	83 0 0-	85 0 0
Tough cake and tile	81 0 0-	82 0 0
Sheathing & sheets.	84 0 0-	85 0 0
Bolts	83 0 0-	—
Bottoms	85 0 0-	88 0 0
Old (Exchange)	69 0 0-	70 0 0
Burra Burra	85 0 0-	—
Wire, per lb.	0 1 0	- 0 1 0½
Tubes	0 0 11½	- 1 0

BRASS.	Per lb.
Sheets, per lb.	9d.- —
Wire "	8¼d.-8½d.
Tubes "	10½d.-11½d.
Yellow Metal Sheath. p. lb.	7¼d.- —
Sheets "	7d.- —

SPELTER.	Per ton.
Foreign on the spot	£21 7 6- —
" to arrive	21 10 0- —

ZINC.	
In sheets	£25 10 0- 26 0 0

TIN.	
English blocks	116 0 0
Do., bars (in barrels)	117 0 0
Do., refined	120 0 0
Banca	115 0 0
Straits	114 0 0

TIN-PLATES.*	Per box.
IC Charcoal, 1st qua.	1 6 6- 1 8 6
IX Ditto, 1st quality	1 12 6- 1 14 6
IC Ditto, 2d quality.	1 5 6- 1 6 6
IX Ditto, 2d quality.	1 11 6- 1 12 6
IC Coke	1 3 6- 1 5 6
IX Ditto	1 9 6- 1 11 6
Canada plates, p. ton	13 10 0- —
Ditto, at works	12 10 0- —

* At the works, 1s. to 1s. 6d. per box less.

IRON.	Per ton.
Bars Welsh, in London	6 12 6- 6 15 6
Ditto, to arrive	6 10 0- 6 12 0
Nail rods	7 0 0- 7 2 6
" Staffd. in London	7 12 6- 8 10 0
Bars ditto	7 10 0- 9 10 0
Hoops ditto	8 2 6- 9 15 0
Sheets, single	9 2 6-11 0 0
Pig No. 1, in Wales	3 15 0- 4 5 0
Refined metal, ditto	4 0 0- 5 0 0
Bars, common ditto	6 0 0- —
Do. mrch. Tyne or Tees	6 10 0- —
Do., railway, in Wales	6 0 0- —
Do., Swed. in London	10 0 0-10 5 0
To arrive	10 5 0- —
Pig, No. 1, in Clyde	2 16 0- 3 2 9
Do. f.o.b. Tyne or Tees	2 9 6- —
Do. Nos. 3, 4, f.o.b. do.	2 6 6- 2 7 0
Railway chairs	5 10 0- 5 15 0
" spikes	11 0 0-12 0 0
Indian Charcoal Pigs, in London, p. ton	7 0 0- 7 10 0

STEEL.	Per ton.
Swed., in kegs (rolled)	— - —
" (hammered)	15 5 0-15 10 0
Ditto, in faggots	16 0 0- —
English, spring	17 0 0-23 0 0
QUICKSILVER (p. bottle)	6 17 0- —

LEAD.	Per ton.
English Pig, com.	19 2 6- —
Ditto, LB.	19 7 6- —
Ditto, WB	21 0 0- —
Ditto, sheet	20 0 0- —
Ditto, red lead	21 0 0- —
Ditto, white	27 0 0-30 0 0
Ditto, patent shot	22 0 0-22 10 6
Spanish	18 5 0-18 7 0

REMARKS.—We have had another rather quiet week in the Metal Market, and business has not yet returned to the briskness which it exhibited a short time since. Nevertheless, there are many circumstances which lead to the belief that the present inactivity will speedily pass away, and be replaced by a much more satisfactory state of business, and a return to activity and vigour in the Metal Trade. Although the market is thus without energy, yet prices have very little, if at all, given way, manufacturers and holders generally anticipating that an improved state of things will soon arise, and consequently are indisposed to make any concessions at present in prices; and, should anything like a good demand arise in the spring, which is almost certain to be the case, prices of most metals will, in all probability, go higher than they now are, especially in the case of those which are still somewhat below the usual average. Late advices from India are rather calculated to encourage expectations of an improvement in the demand from that quarter, as the fears which have been entertained of scarcity arising have been dispelled by the falling of the accustomed rains, which will thus ensure the raising the crops so essential for the support of the population. It will be very satisfactory to see a return of the activity which used formerly to characterise our transactions with India. The movement, also, which is taking place in China will, we trust, result in extended commerce, and in an increase of the shipments of metals to that vast empire, where there is so large a scope for business operations, upon even a more enlarged scale than has yet been adopted, and where we look eventually to see a very increased outlet for our own manufactures, and a very considerable advance in our intercourse with that remarkable people.

COPPER.—Advices have been received from Chili that the charters for the last half of December amounted to 1900 tons bar and ingot, and 1000 tons ore and regulus, but it is uncertain whether the latter quantity is for this country or the United States. Sales of Chili bar, to some extent, have been made at 74*l.* to 74*l.* 10s. cash, and 75*l.* 10s. prompt three months. English has not been in active demand, but prices remain very firm at the quotations.

IRON.—In Staffordshire orders continue small, and most of the works are not turning out more than half their proper production. The demand for plates is especially slack. It is hoped that the prospect of the re-opening of the northern ports may brings orders shortly. In Welsh a small quantity of the iron waiting to be shipped has been now cleared. The markets of the United States and the South American ports are the principal buyers, and advices from the States point to an increase in the demand before long. Continental enquiries keep without any material change, but should war be averted between Greece and Turkey there is no doubt that the requirements of the continental markets will increase to a considerable extent. Home engagements are coming in with tolerable regularity, more particularly for railway iron. For bars there is a moderate enquiry. In Swedish iron a good demand still exists, with every prospect of increasing business. In Scotch pig-iron a fair business has been done during the week, and prices have advanced, the last price received from Glasgow being 55s. 7d. cash.

LEAD.—A rather better business has been done in this metal, and prices are firm, an advance of 2s. 6d. per ton having been established.

TIN.—The market for Straits has not been active during the week, and no sales of importance have been announced. Holders are very firm, at 114*l.* cash, and it is by no means improbable that higher prices will be realised ere long.

SPELTER.—This metal has maintained the improvement already noticed, and prices have become still better. Sales on the spot have been effected at 21*l.* 7s. 6d., and for forward delivery at 21*l.* 10s.

TIN-PLATES.—Makers are still firm in their prices, and a good business is still done, with prospects of greater activity before long.

STEEL without activity.

QUICKSILVER.—For about 24 hours during the week the price was reduced to 6*l.* 15s., but was put up again to the old figure of 6*l.* 17s.

THE COPPER TRADE.—Messrs. James and Shakspeare—Several parcels of regulus, chiefly to arrive, have been disposed of at 15s. per unit; the enquiry, however, at said figure is not very general. On the 8th inst. telegrams were received, advising the Chili charters for the last fortnight of 1868 at about 3200 tons pure metal; the messages rather vary as to quantities and particulars—some stating that a good portion of the ore and regulus is for the United States. At first the news was rather unfavourably received, but as a large fleet of vessels was known to be lying in Valparaiso, the opinion has gradually gained ground that they have been taken up for rather distant shipments, and within the last day or two a fair quantity of bars have been taken at 74*l.* cash, 74*l.* 10s. for short arrival. From and including Friday last, the sales in Chili produce are rather large; we estimate about 1350 tons bars at 74*l.* and 74*l.* 5s. cash, 200 tons at 74*l.* 5s. and 74*l.* 10s. for short arrival, and 150 tons at 75*l.* 10s. for distant prompt. In ingots, 370 tons (chiefly Lota) at 77*l.* all round, 110 tons Urmenita only at 79*l.* 10s. per ton. For Australian sorts the demand continues limited; a forced sale of Burra is reported at 84*l.*, but the general value both of this sort and Wallaroo is 20s. to 30s. per ton higher. The Wallaroo Smelting Company have recently erected new works, and are sending over cake copper branded with the name of the place where the metal is made (Hunter River); the first consignment of 50 tons has just arrived, and as it is made from the same ore and in the same method as the favourite brand "Wallaroo," it is believed the quality will be found precisely similar. English kinds are dull; from Birmingham we hear of tough being sold at 79*l.*, some special makes realising 2*l.* to 3*l.* per ton higher. There is a better enquiry for manufactured, and orders are offering which, though at low rates, closely approximate to those which smelters are willing to accept.

Messrs. Vivian, Younger, and Bond—On Monday telegraphic news was received from the West Coast of charters to the extent of about 3000 tons of fine copper in bars, regulus, and ores for the second half of December, which at the moment seemed calculated rather to damp the market; but it being considered that probably a large proportion of the regulus and ores may have been destined for America, and also from the fact of the market being in itself very sound, no appreciable difference has been made in values, and bars have realised the same price since the arrival of the telegrams as before. In all, about 1700 tons of bars have been sold, at prices ranging from 74*l.* to 74*l.* 5s. cash, and 74*l.* 10s. to 75*l.* 10s. for short prompt and arrival. About 400 tons of Urmenita and Lota ingots were sold on private terms, whilst 110 tons of the former fetched 78*l.* 10s. Of regulus, more than 2000 tons have been taken at 15s. per unit. The market closes steadily at the above-named prices.

The settlement of the fortnightly account took place in the MINING SHARE MARKET this week, and occupied a good deal of the dealers' attention, yet the market has been more active than usual, and has shown altogether a better tone, and in many instances shares have advanced considerably. These things have been owing to one or two good improvements in mines, and a great many orders to buy on the part of the public. The mines dealt in to the greatest extent have been Great North Laxey, West Chiverton, Prince of Wales, Chiverton, East Caradon, Herodsfoot, Great Wheal Vor, Great Laxey, Chiverton Moor, Drake Walls, Chontales, North Treskerby, Providence Mines, Tincroft, West Frances, Wheal Grenville, East Grenville, New Lovell, North Crofty, Pedn-an-drea, West Seton, &c. East Grenville shares have advanced to 3⅜, 3⅝; the 55 east is 3 feet wide, as splendid a looking lode as can be seen, worth 3 tons of rich ore per fathom; this level has already been driven 17 fms. through good orey ground; the rise above this level is worth 3 tons of copper ore, or 20*l.* per fm.; the 45 is worth 1¼ ton of copper ore. Wheal Grenville shares have advanced to 39s., 41s.; the cross-cut in the 90 north shows signs of being near the lode, which is a very important point. Bedford Consols, 10s. to 15s.; Bedford United, 2 to 2¼. Pedn-an-drea shares have advanced to 7, 8; the discoveries lately made on a side lode are very important, and likely to put the mine into the Dividend List soon. The north lode, in the 90 west, is worth 50*l.* per fathom; the lode in the back of the 90 fathom level end is worth 100*l.* per fathom; the 55 fathom level west, 40*l.* per fathom, and improving as it gets away from the cross-course; in the shaft sinking below the 55 the lode is worth 30*l.* per fathom; the 47 fathom level, west end, is worth 25*l.* per fathom. Chiverton Moor, 4 to 4¼.

Prince of Wales shares have been dealt in to a large extent, and advanced to 24s., 26s.; the bottom level, the 65 east, has improved to 20*l.* per fathom. This end, as we explained some weeks ago, is now getting into the run of ore which in the 55 was worth from 60*l.* to 89*l.* per fathom. Chontales Gold, 22s. 6d. to 25s.; the remittance by present mail is 534 ozs. of gold. The stamps are doing good duty, and the expenses at the mines being reduced. Cook's Kitchen, 12¾ to 13¼. East Caradon, 8¼ to 8⅝; the ends on the caunter lode are poor. Child's lode, in the 90 west, is worth 20*l.* per fm.; the 90 east, 15*l.*; the 80 west, 10*l.*; the 70 west, 20*l.*; and the 70 east, 7*l.*; the south part of Child's lode, in the 80, 5*l.* per fathom in each end. Drake Walls, 16s. to 18s.; Don Pedro del Rey, 4⅛ to 4⅜; East Basset, 6 to 8; East Lovell, 8 to 8½; Frank Mills, 3¾ to 4; Frontino and Bolivia, 8s. to 10s.; Glan Alun, 7s. 6d. to 10s.; Great Laxey, 19 to 20. Great North Laxey shares have been largely dealt in at 32s. 6d. to 37s. 6d. North Treskerby, 19s. to 21s.; at the meeting, on Tuesday, a call of 1s. 6d. per share was made. The accounts showed a loss on two months' working of 224*l.* 11s. 3d., and a balance against the company of 476*l.* 1s. 1d. The ores since sold, and to be credited to next account, realised 907*l.* 11s. 8d., which, with 200*l.* worth of tin, will about meet the cost. The prospects of the mine are described as improving in the 120, 110, 100, and 47 fm. levels. Providence Mines, 35 to 37½.

Wheal Crebor, 6s. 6d. to 8s. 6d.; at the meeting, held on Thursday, the accounts showed a cash balance in hand of 148*l.* 3s. 1d., and a balance of liabilities over assets of 366*l.* 6s. A call of 1s. 6d. per share was made. Three rather important points are coming off. First, the 96 fm. level cross-cut, which has been driving nearly two years towards the Bucktor lode, is now close upon it, and the ground strongly intermixed with arsenical mundic. Second, the 120 west is getting near Kelly's shaft in the old mine, in which a good lode is said to have been left in the old workings. Third, the 120 east is nearing the shoot of ore gone down in the 108. Great Retallack, 2¼ to 2¾; Great Wheal Vor, 11½ to 12; Herodsfoot, 44 to 46; Marke Valley, 9 to 9¼. Mineral Bottoms have advanced to 3, 3½; we understand some discovery has been made, but have no official information. New Lovell, 2¾ to 3; North Crofty, 17s. 6d. to 22s. 6d.; North Roskear, 3 to 5; South Condurrow, 17s. 6d. to 20s.; Tincroft, 17 to 18; West Caradon, 2½ to 3; West Chivertons have been flat, through the pressure of sales, at 52 to 54; West Drake Walls, 3s. 6d. to 4s. 6d.; West Frances, 41 to 43; West Seton, 195 to 205; Wheal Agar, 20s. to 25s.; Wheal Basset, 70 to 75; Wheal Chiverton, 2¾ to 3; Wheal Kitty (St. Agnes), 4 to 4¼; Wheal Mary Ann, 20 to 22; Wheal Seton, 75 to 80; and Wheal Uny, 3⅜ to 3⅝.

The Market for Mine Shares on the Stock Exchange, during the week, has been rather dull, being a slight reaction to a considerable run of activity. Prices are not much lower, and there is still a fair amount of business doing. Lead mine shares attract attention from some good discoveries recently made, and the improving position of the lead market. Van Mine sold for the month 150 tons, at 13*l.* 8s. 6d. Mineral Bottom shares have risen to 3, 3½, on a discovery in the trial shaft. West Chiverton shares have been largely dealt in, and close firmer, at 53 to 54. Great attempts have for some time past been made to poison the minds of the proprietary. The meeting will be held in a few days, and the 2*l.* quarterly dividend declared. South Caradon shares are firm, at 365 to 375. Great Laxey shares are steady, at 19 to 19½. Glan Alun, 12s. 6d. to 13s.; Great Wheal Vor, 11⅞ to 12¼; Prince of Wales, 24s. to 26s. East Caradon shares are rather less firm, at 8¼ to 9. New Lovell shares are enquired for. In Foreign Mines, Don Pedro shares continue to hold a firm position, and close 3⅛ to 3⅜ prem. St. John del Rey shares have risen to 17½, 18, and in better demand. Anglo-Brazilian, ⅛ dis. to par. Chontales shares fell from 1½ to 1, but have rallied to 1⅛, 1¼, on the more favourable report. Anglo-Italian, par to ¼ prem.; Frontino and Bolivia, 8s. to 9s.; General Brazilian, 3s. to 4s. prem.; Pestarena, 1⅜ to 1⅝; Port Phillip, 1⅞ to 2; Rossa Grande, ½ to ⅝ prem.; Sao Vicente, ⅛ to ¼ prem.; Yudanamutana, 1⅞ to 2⅛. Taquaril, 4s. to 5s. prem., and largely dealt in.

IRISH MINE SHARE MARKET.—The week just ending has been rather favourable for business on our Stock Exchange, more particularly in mining shares, which were well supported. Mining Company of Ireland made a strong advance from 11*l.* 10s., last week's closing quotation, to 12*l.* up to 12s. 3s. 6d., when the supply increased, resulting in a reduction to 11*l.* 17s. 6d., leaving still a final rise on the week of 7s. 6d. per share (7*l.* paid). Wicklow Copper shares (2*l.* 10s. paid), for which, as we reported, 11*l.* 2s. 6d. was last week ineffectually offered, have improved to 12*l.*, at which price they closed firm, both for cash and deferred transfer. Killaloe Slate Quarry shares advanced 1s. 6d. per share before the close of last week, but receded again 6d. per share, having just been done at 17s. (1*l.* paid). Arklow Chemical Works have made a strong upward movement, having realised 1*l.* 9s. per share (1*l.* paid), amounting to a rise within the last fortnight of about 10s. per share. Connorree shares are not so much in request, and have been sold at 4s., or 3d. under previous price. Cape Copper shares have changed hands at 13*l.* 17s. 6d., buyers' price, holders asking 14*l.* (7*l.* paid).

The NORTH STAR GOLD MINING COMPANY, with a capital of 225,000*l.*, in shares of 10*l.* each, and to which frequent reference has been made in the *Mining Journal*, has issued its prospectus, which will be found in another column. The mines are now, and have been for some years, in full and successful operation, and the property is freehold, and exempt from all royalties. There are 24 heads of stamps working, and the yield per month, according to latest advices, exceeds 8000*l.* The vendors do not require the purchase-money to be paid before the legal advisers of the company in California have certified that the property has been duly transferred to the company, and until every facility shall have been offered for testing the correctness of their account of the mines in

all essential particulars, both as to present workings and future prospects. The property is capable of being developed on a much larger scale than at present, and the yield of gold might at once be much increased by the erection of additional stamp-heads, which could be done at a comparatively trifling outlay. The transfer of the mines to the company need not occasion any stoppage of the works, and the usual monthly returns of gold will be received from the mines as heretofore, from the moment they come into the possession. It appears that two-thirds of the shares have been applied for, and that no more is to be paid until the report is certified by a qualified person sent out by the new directors.

The CONSOLIDATED AUSTRALIAN GOLD MINING AND INVESTMENT COMPANY (Limited), which is now in course of formation, to develope the auriferous resources of proved ground at Ballarat, Victoria, Australia, under the powers vested in Mr. Wm. Collard Smith will, we understand, be brought before the public shortly, and under highly satisfactory auspices. The temporary offices are at Mr. Dickers' Australian Agency, Royal Exchange Avenue.

The TRUXILLO MINING COMPANY, which has been formed with a capital of 5000*l.*, in shares of 1*l.* each, for the purpose of working the rich mineral and other deposits found in the district of Otuzco, near the city of Truxillo, in Peru, has issued its prospectus. Silver ore, anthracite coal, and clay have been discovered, and it is proposed, as one of the first operations of the company, to erect a small smelting establishment, and smelt the silver ore, of which abundant supplies can be obtained from the natives who work the mines. Coal is on the spot for smelting, and arrangements can be entered into also for providing at the works as much as is required. The experience which Mr. Harris has obtained during his residence in Peru gives the directors the greatest confidence in his statements; he states that the produce in silver ore ranges from 4 to 100 marks per ton, the mark being equal to 8 ozs., and that the coal is anthracite, of splendid quality—a seam of 10 ft. thick on the side of a mountain—and can be delivered into the works at 17s. per ton at most. There is waterpower and wood in abundance, and capital clay on the spot for firebricks, which can be made for less than they cost in England. Labour is 4 reals (1s. 6d.) per day. Mr. Harris proposes to extract the silver from certain class ores, to smelt others into a silver regulus for shipment to England, and to ship the rich ores without any previous treatment. He says he can get most rich and valuable properties without any payment, and the Government has offered him every assistance he requires. Judging from the very favourable circumstances above referred to, the directors believe that profits may be realised more extensive and durable than those which have been attained in any enterprise of a similar character. The directors' remuneration is to depend upon the amount of dividends declared.

The DOLWEN COMPANY, with a capital of 5000*l.*, in shares of 1*l.* each, has been formed for the purpose of developing the mines and minerals under 798 acres of land, known as Bodcoll and Dolwen, in Cardiganshire, held on lease from the Comissioners of Woods and Forests. The company was incorporated in March, 1867, with the capital divided into shares of 5*l.* each, but, owing to the effects of the panic being still felt, only 421 shares were subscribed for, in consequence of which the works carried out were of an exploratory character only. The property, which is situated about 1½ mile from Cwmystwith, contains two masterly lead lodes, the south one being, according to repeated diallings, the same lode as the celebrated Frongoch of the Lisburne Mines, worked under the management of Messrs. John Taylor and Sons, and from which large dividends have been obtained. The reports, both of Mr. J. H. Hitchins and of Captain Matthew Francis, are highly favourable, and considerable importance is attached to the fact that Messrs. John Taylor and Sons have recently purchased and taken an assignment from the present company of the western ground of the sett. The prospectus will be found in another column.

At Redruth Ticketing, on Thursday, 1529 tons of ore were sold, realising 6298*l.* 5s. 0d. The particulars of the sale were:—Average standard, 106*l.* 4s.; average produce, 6¼; average price per ton, 4*l.* 2s. 0d.; quantity of fine copper, 98 tons 18 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Jan. 7 ..	685	£105 0 0	6¼	£4 1 6	12s. 7d.	£62 14 0
„ 21 ..	3322	108 13 0	6⅜	4 10 0	13 4	67 8 6
„ 28 ..	2341	103 9 0	7⅛	5 3 0	13 6	67 8 0
Feb. 4 ..	2432	107 11 0	6⅜	4 3 6	12 11	64 14 0
„ 11 ..	1529	106 4 0	6¼	4 2 0	12 9	63 14 0

Compared with last week's sale, the decline has been in the standard 1*l.* 5s., and in the price per ton of ore about 1s. 6d. Compared with the corresponding sale of last month, the advance has been in the standard 1*l.*, and in the price per ton of ore about 1s. 4d.

At the Dolcoath Mine meeting, on Monday, the accounts showed a profit on the two months' (November and December) operations of 3591*l.* 19s 5d., which, added to the item of 358*l.* 13s. 10d. brought forward from the last account, made a credit balance of 3950*l.* 13s. 3d. A dividend of 3580*l.* (10*l.* per share) was declared, leaving the sum of 370*l.* 13s. 3d. to be carried forward to the credit of the next account. The agents' report appears in the usual place.

At the Minera Mining Company meeting, on Feb. 5, a dividend of 15,000*l.* (5*l.* per share), free of income tax, out of the profits for Oct., Nov., and Dec., was declared, payable on and after the 15th inst.

At South Wheal Crofty Mine meeting, on Feb. 1, the accounts for four months, ending Dec., showed a profit of 465*l.* 5s. 1d. A dividend of 468*l.* 10s. (10s. per share) was declared. Mr. E. H. Rodd, the purser, says—"There is no particular improvement in the mine to refer to, but there are several points which, in the course of its further development, offer the same chances of improvement in a mineralised district, with a probability of the lower strata producing an increase of tin returns, like our neighbouring mines."

At the Alderley Edge Mining Company general meeting, held at the mines on Jan. 28, a further dividend of 5s. per share was declared—making the total amount 10*l.* 6s. 8d. per share.

At the North Treskerby Mine meeting, on Tuesday, the accounts showed a debit balance of 476*l.* 1s. 1d. The loss upon the two months' (November and December) operations was 224*l.* 11s. 3d. A call of 1s. 6d. per share was made. It was resolved that legal proceedings be taken against all shareholders who have not paid the call made on Oct. 6 on or before the end of the present month. The report of the agents states that the prospects of the mine are better, when they look at the chances they have in driving the 120, 110, 100, and 47 fm. levels, together with the sinking of Doctor's shaft in the new piece of ground, and they think they have every reason to believe they will still continue to improve.

At the West Basset Mine special general meeting, on Wednesday, a resolution was passed to carry the suit in Chancery to the House of Lords, if so advised by counsel.

At the Great Northern Manganese Company meeting, at Manchester, on Wednesday (Sir Eustace F. Piers, Bart., in the chair), a dividend at the rate of 5 per cent. per annum (free of income tax) was declared. The directors, in their report, state that a larger dividend could have been paid, but they prefer to establish the company on a sound basis by forming a strong reserve fund.

At the Mwyndy Iron Ore Company meeting, on Monday (Mr. Capper in the chair), a dividend of 3s. per share was declared. Details elsewhere.

COAL MARKET.—The fresh arrivals this week only amounted to 92 ships; the mild weather, and a large fleet of laden ships at sea, caused a dull market for house coals, and we quote a reduction during the week of fully 1s. per ton. Hartley coals have also been a heavy sale, at lower prices. Hetton Wallsend, 16s. 6d.; South Hetton Wallsend, 16s.; East Hartlepool Wallsend, 15s. 9d.; Lambton Wallsend, 16s.; Eden Main, 14s. 3d.; Harton Wallsend, 13s. 3d.; Buddle'f West Hartley, 12s. 6d.—Unsold, 8 cargoes: 195 ships at sea.

MINERAL TRAFFIC ON RAILWAYS.—The quantity of coal, coke, and other minerals conveyed over the railways of England and Wales in 1867 was 74,907,946 tons, as compared with 71,873,964 tons in 1866, showing an increase in 1867 of 3,033,982 tons. The quantity of coal, coke, and other minerals conveyed over the railways of Scotland in 1867 was 13,216,037 tons, as compared with 13,195,851 tons in 1866, showing an increase in 1867 of 20,186 tons. The quantity of coal, coke, and other minerals conveyed over the railways of Ireland was 509,808 tons in 1867, as compared with 413,629 tons in 1866, showing an increase of 96,179 tons in 1867. The coal and mineral traffic of Irish railways will be seen to be very feeble; nevertheless it is increasing. The aggregate quantity of coal, coke, and other minerals conveyed over the railways of the United Kingdom in 1867 was 88,633,791 tons, as compared with 85,483,444 tons in 1866, showing an increase of 3,150,347 tons in 1867. The sum derived by English and Welsh railways from coal and mineral traffic in 1867 amounted to 6,481,635*l.*, as compared with 5,962,241*l.* in 1866; by Scotch railways, 1,097,526*l.*, as compared with 1,058,998*l.* in 1866; and by Irish railways, 61,717*l.*, as compared with 53,684*l.* in 1866.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Feb. 5—	Minera	105	£12 13 6	Walker, Parker, & Co.
—	ditto	100	12 13 6	ditto
—	ditto	50	12 15 6	P. Glover.
—	ditto	100	12 13 6	Walker, Parker, & Co.
—	ditto	50	12 15 6	ditto
—	Foxdale	100	22 16 6	—
—	Great Laxey	100	22 16 6	Walker, Parker, & Co.
8—	Glogfawr	40	14 0 0	Panther Lead Co.
—	Frongoch	110	11 14 6	Walker, Parker, & Co
—	East Darren	75	15 19 0	Panther Lead Co.
—	Goginan	33	17 1 0	Runcorn Smelting Co.
—	Cwm Erfin	46	16 1 0	Walker, Parker, & Co.
10—	Cardiganshire	20	11 17 0	Burry Port Co.
—	Van	100	12 8 6	A. Eyton.
—	ditto	50	12 8 6	ditto
11—	Talargoch	57½	13 7 6	Walker, Parker, & Co.
—	ditto	137	14 3 6	ditto
—	Holywell Level	60	12 3 6	A. Eyton.
—	Bryn Gwiog	21	13 0 6	Walker, Parker, & Co.
—	Treiogan	20	12 18 6	ditto
—	Deep Level	25	12 15 6	A. Eyton.
—	Speedwell	7½	10 13 6	Walker, Parker, & Co.
—	Pennant	7	11 16 6	ditto
—	Great Rhosesmor	6	11 5 0	ditto
—	Wagstaff	7½	11 5 6	ditto
—	ditto	7½	11 5 6	A. Eyton.
—	Kilmory	5	11 11 6	ditto
—	Sir Edward	4½	12 16 6	Walker, Parker, & Co.
—	ditto	2	11 8 6	ditto

CARGOLL MINES sold, on Feb. 5, 77 tons of lead ore, which realised 1450*l.*

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Feb. 5—	Minera	98	£ 4 0 0	Bagillt Company.
—	ditto	80	3 17 6	ditto
—	ditto	65	2 19 0	Vivian and Sons.
—	ditto	37	3 7 6	Kenrick and Son.
6—	Talargoch	118	3 12 6	ditto
—	ditto	40	2 13 0	Bagillt Co.
10—	Treiogan	130	3 7 0	Vivian and Son.

BLACK TIN.

Date.	Mine.	Tons. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
Feb. 4—	West Godolphin..	5 6 1 11 ..	70 2 6 ..	374 17 6—	—
6—	Wheal Uny	6 9 1 10 ..	65 10 0 ..	423 11 9—	—
—	St. Just Amal....	16 14 1 22 ..	67 0 0 ..	1120 8 0—	—
—	ditto	0 19 1 14 ..	46 0 0 ..	44 11 0—	—

COPPER ORES.

Sampled Jan. 27, and sold at Tabb's Hotel, Redruth, Feb. 11.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Crenver & Abraham..	75	£2 11 0	North Downs	47	£6 10 0
ditto	70	2 4 6	ditto	34	6 7 0
ditto	68	2 14 0	ditto	29	6 11 0
ditto	66	1 19 6	Prosper United	59	2 4 0
ditto	60	4 1 6	ditto	30	3 5 6
ditto	58	2 8 0	ditto	19	5 0 0
ditto	55	2 4 6	Wh. Emily Henrietta	38	7 15 6
Carn Brea	67	4 5 6	ditto	28	3 8 6
ditto	61	7 17 6	ditto	23	1 16 6
ditto	48	3 19 0	ditto	16	9 16 6
ditto	45	5 7 6	Botallack	33	9 7 6
ditto	39	4 4 6	ditto	16	6 6 6
ditto	30	4 7 0	Levant	25	8 10 0
ditto	19	1 10 6	ditto	22	9 4 6
Par Consols	75	4 1 6	South Polmear	25	1 16 6
ditto	32	1 13 6	Wheal Tremayne	23	3 10 6
ditto	30	4 0 0	North Pool	14	5 14 6
East Carn Brea	43	3 12 6	Treven	7	5 12 0
ditto	35	2 13 6	Rosewarne Consols ..	6	6 11 6
ditto	32	3 13 6	Great Crinnis	2	3 5 6
ditto	25	0 15 6			

TOTAL PRODUCE.

Crenver & Abra...	452	£1167 0 6	Levant	47	£ 415 9 0
Carn Brea	309	1522 10 6	South Polmear ..	25	45 12 6
Par Consols	137	479 4 6	West Tremayne..	23	81 1 6
East Carn Brea..	135	386 9 6	North Pool	14	80 3 0
North Downs	110	711 7 0	Treven	7	39 4 0
Prosper United..	108	323 1 0	Rosewarne Con...	6	39 9 0
Wh. Emily Hen...	105	590 10 6	Great Crinnis	2	6 11 0
Botallack	49	410 11 6			

Average standard ..... £106 4 0 | Average produce 6¼
Average price per ton £4 2 6
Quantity of ore ..... 1529 tons | Quantity of fine copper.. 98 tons 18 cwts.
Amount of money £6298 5 0
LAST SALE.—Average standard ..... £107 11 0—Average produce 6⅜
Standard of corresponding sale last month, £105 0 0—Produce, 6¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	252 5-6	£1056 17 10
Freeman and Co.	190½	1014 9 3
Grenfell and Sons	206⅛	987 18 9
Sims, Willyams, and Co.	39	164 15 6
Williams, Foster, and Co.	353½	1781 12 7
Mason and Elkington	331⅞	962 1 4
Bankart and Sons	19	28 19 6
Copper Miners' Company	131½	298 16 3
Total	1529	£6298 5 0

Copper ores for sale at the Royal Hotel, Truro, on Thursday next—Mines and parcels.—Devon Great Consols 1341—Marke Valley 521—Okel Tor 320—East Caradon 197—Gawton Copper Mine 150—Kelly Bray 110—Prince of Wales 101—Gonamena 81—Brookwood 80—Wheal Crebor 60—Wheal Russell 53—Wheal Mary Florence 33—Belstone 30—Wheal Kitty 15—Sortridge Con. 10.—Total, 3102 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week—Mines and parcels.—South Caradon 518—Great North Downs 265—Clifford Amalgamated 236—Phœnix Mines 196—West Wheal Damsel 158—Craddock Moor 74—Pennance 40.—Total, 1457 tons.

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

DEEPEST COLLIERY, AND MOST EXTENSIVE WORKINGS—"N. R." (Newport).—The depth of the Dukinfield Colliery, Cheshire, is over 2050 ft.; and the Monkwearmouth Pit, Durham, is nearly 2000 ft. The galleries in the Killingworth Mine, near Newcastle, measure upwards of 160 miles. At one colliery, near Newcastle, the passages measure more than 20 miles; and at St. Hilda Colliery, South Shields, the workings equal fully 70 miles in gallery extent. At the Howgill Colliery, near Whitehaven, the workings have been carried on more than a thousand yards under the sea.

SAN PEDRO DEL MONTE SILVER MINING COMPANY.—For what reason are the shareholders not furnished with full information? I am told that most important intelligence has been received, and why is it not published in your columns in the same way, as the advices from all other foreign mines? I have looked for it now several weeks, but have failed to find any reference to this company.—A SHAREHOLDER.

SCALE FOR ADVERTISEMENTS.—To avoid the necessity of frequent application we may state our charge for general advertisements is—for six lines and under, 4s.; per line afterwards, 8d. Average, twelve words per line.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, FEBRUARY 13, 1869.

MINING DISASTERS.

The exception which last week we had occasion to note as prevailing at that time with relation to the different colliery districts which have just suffered, if not from explosions underground, then from explosions of boilers no, longer, unhappily, exists. South Wales has now to be added to the modern list. There an explosion of gas happened on Tuesday, in Mr. BROWN'S pit, at the Powell's Duffryn Steam Company's Fforchaman Colliery, Aberdare, by which three people were killed and nine others injured. The facts to justify comment in this place are not yet forthcoming. We must, therefore, reserve what we may have to say upon the occurrence till after the inquest.

The enquiry into the Springwell Colliery explosion, it will be seen by our Northern correspondence, is over. The deaths, which were three at the date of our last, have become four, and the verdict, if it is not very striking, is certainly comprehensive enough. Last week we wrote—"It can scarcely be said that the accident at the Springwell Colliery resulted from what is regarded in legal phrase as criminal neglect," and the verdict records this as the view also of the jury. The more complete facts brought out in the investigation further confirm our last week's belief, which it will be remembered was to the effect, further, that if the men had been as well informed as we hope some day they will be of the risk they were thereby running, they would not at a time of a falling barometer have gone through the "thickish" air with naked lights. Nor should they have been allowed to go. And the day, we fully believe, is not very distant when under similar circumstances they will not be permitted, even by the class of overlookers who were responsible for their movements on the morning of the explosion. These men had been duly warned by evidences to which their attention was drawn of the presence of danger—danger certainly of a character very seldom seen in that part of the pit, or it would not have been customary to work with naked lights, but danger so unmistakable that it ought not to have been disregarded. The wonder is that an explosion did not occur earlier. What the hewer, MCRAE, did in his conflict with the gas which exuded in his flat will be read with little short of that excitement which we get from the perusal of the narration of a struggle between a human being and a cobra—a human being, however, who owing to his constant association with the poisonous reptile becomes comparatively indifferent to its deadly power. At six o'clock at night MCRAE, in true North Country pit dialect, found "her klicking his candle. She made a bit of fire, and she lit up." Assisted by a collier, whom he called from the adjoining place of work, the flame was knocked out, and the candle shifted to the brattice side, where the air was blowing in. Afterwards, shifting his candle to the other side, and while using his shovel, he "made the gas fly on the candle and light up again, but it knocked itself out against the face of the headways." The evidences had accompanied the firing of a shot. He wanted to fire another, but his overlooker told him to hew the coal. He could not do this, so he drilled the hole and put in a shot. Somewhat sensible, however, after what had happened, that he was engaged in risky business, he tells us that before firing he put his big shirt on, "in case anything should happen." But in order that nothing might happen, he "dadded" his jacket along the roof, to drive away the gas, but took care, upon lighting the match, to run to the next bord further out. The shot again lighted up the gas, but, happily for him and for his fellow-workmen, the flame was no more than he could knock out with his jacket. All this was known to the other deputy-overman, besides the one to whom we first referred, but the poor fellow is now dead. Both of them were in MCRAE'S bord after these manifestations of danger, and poor AISBETT suggested to his mate SCORER that he had better leave MCRAE his lamp, but the miner, with that indifference to danger resulting from imperfect information, did not care for it, and expressed his ability to "work the place for his own safety, as long as he was in it." Gas had been seen in the pit on the 27th ult., but it was so little that when the overmen we have named, upon having it reported to them, searched for it with their lamps, they could not find it. The supply of air to the pit was ample "under ordinary circumstances." There was 3000 feet passing round the workings where the explosion took place, and it entered them at the rate of 107 feet per minute. The ventilating power had been recently increased. A new furnace was put into operation just a month before the explosion: 10 fathoms under the Low Main seam, in which the accident occurred, there is the Hutton seam, which is worked out, no doubt contains gas, and, probably, had fallen in just before the accident. The gas came from the first pillar, up from the strait in the headways, but at the time of the final inquest no crack remained. It is the opinion of Mr. CUTHBERT BERKLEY, the chief mining engineer to Messrs. BOWES and Co., that the new furnace, having more power than the old one, might have a tendency to draw up the gas from the Hutton seam.

And there was another influence at work. From January 25 to 28 there was a rising thermometer, and the barometer was falling steadily in Newcastle at the rate of ·150 of an inch. From 9 o'clock on the night of the 28th to 9 o'clock on the next morning there was a fall of about ·200 of an inch, and the lowest reading of the barometer was at about the time at which the explosion happened. It is not, therefore, surprising that even though the Low Main may have been so free as to allow of the use of lighted candles, the air should have been "thickish" on the morning of the accident. The Springwell calamity will be a further contribution to the data which are being accumulated as to the simultaneousness of explosions and atmospheric perturbations. It has been remarked that in a report upon the Burradon explosion of 1860, Mr. JAMES MATHER stated that a fall in the barometer of ½ in. or 1 in. permitted the gas to flow freely into the works. The explosion happened on March 2, down to which date the barometer had been gradually sinking from the 23d of the previous month. The same authority also affirmed that in the adjoining colliery of Seghill whenever the barometer read as low as 28·7 in the Grey Seam that the gas from the fissures of the roof came forth with effervescing sound, and had sometimes fired the lamp upon the hill at a distance of 6 ft. On the other hand, when the mercury rose the gas rushed back with an audible noise. "There are instances in the mines," he added, "when the barometer has secured from danger by its warnings, as it does the storm-threatened mariner at sea. In these modern days almost every well-educated viewer trusts to them and his other instruments in the officers' cabin below, where a well-arranged log-book records twice a day their doings, and the direction of the wind with the remarkable occurrences of the mine." The confirmatory facts so strikingly brought out in the paper read at the last meeting of the Mine Agents of South Staffordshire and East Worcestershire, which had been prepared Mr. PLANT and Mr. JOHNSON, and which was epitomised in the Supplement, page 53 of the present volume of the *Mining Journal*, should be read in connection with what we have just set down. It is impossible to resist the conclusions to which we are driven by those coincidences.

Barometrical observations are duly recorded in the Hutton seam, and the facts twice a day placed in a book kept for the purpose, but something more must be done than the mere entering of the readings. That something more, we feel very confident, will soon be noted at all our principal collieries. What the South Staffordshire mine agents are doing in this direction we noted in the Journal which contained the paper to which we have just alluded; and the yet more important association, the Northern Institute of Mining Engineers, to whose proceedings we give prominence this week, will so deal with the matter in their part of the kingdom as to at once remove much misapprehension on the atmospheric question, and at the same time decrease the liability to fatalities at such a period as that at which the Springwell calamity and that, too, at Aberdare have happened.

North Staffordshire is now amongst the localities of recent disasters. It will be seen that four men were killed there on Wednesday night. The Rainford inquest closed on Thursday. We shall remark upon both next week.

The inquest upon the boiler explosion at the Usworth Colliery is over, but the conclusions arrived at are of so unsatisfactory a character that we defer the publication of further observations on that accident till a scientific examination, which we have reason to know is about to be made, shall have been completed.

UNFENCED PITS.

Very many have been the wondrous tales written and told as to the consequences of a want of regard in past times to the safety of human life in South Staffordshire. The text of these marvellous hypotheses was the unfenced pit shafts so plentifully scattered throughout the Black Country. If your friend should be missing in the Midlands, it was enough to conjecture that he had wandered over the pit mounds of South Staffordshire, and no doubt was expressed that you would find him at the bottom of one or other of the old shafts. The return of your friend from an unpremeditated journey, or after an unexpected detention from home, did not explode the fancied danger. Nor was it exploded even after it became pretty well known that examinations made of these old shafts revealed nothing which gave point to the legends. That, however, there was at one time great need for an increase of care in the fencing of old shafts in South Staffordshire there can be no doubt; and if the accidents were not more numerous than the facts disclosed, the circumstance was not due so much to vigilance of colliery owners and managers as to the carefulness with which the natives threaded their way amongst these not inaptly styled "pitfalls." Lately there has been much less need for care on the part of the pedestrian there. It is now a comparatively rare thing even in South Staffordshire, where pits are becoming disused and others are being opened with great frequency—where there are upwards of 500 collieries, with more than 800 shafts, all supposed to be in a working condition—to fall upon an unprotected shaft. But if there should happen to be one, the Government Inspector of the district is not long in finding it out; and if his attention should perchance be called to it by any accident, the stipendiary magistrate will very properly take care that, upon complaint to him duly made, the careless colliery tenant shall have reason to know that the law can punish him.

Cases of neglect, which we incline to believe stand alone in the Black Country, were brought, it will be seen by our Staffordshire correspondence, before the stipendiary magistrate, sitting in the Wolverhampton Police Court, on Wednesday last. There were four complaints, and they all arose out of the condition of shafts on the Breen Ridding Colliery, at Sedgley. The property belongs to Mr. THOMAS COOK PEMBERTON, who works most of it himself, but who has let a portion to one JOHN FOLLOWS. Upon FOLLOWS'S portion there is a pit 44 ft. deep, down which a butty fell three months since, broke his thigh, and had a narrow escape of suffocation. The mouth of the pit had been covered over, after a fashion, with timber, which had rotted. The magistrate fined FOLLOWS 20*l.*, and costs, and when the man pleaded that he had neither goods nor money, since Mr. PEMBERTON had distrained upon him only a few months before, he was sent to gaol for three months. There were three complaints against Mr. PEMBERTON. In one the pit was fenced only with a boiler-plate hoop about 2 ft. high, and the mound round the pit was higher than the fencing. A second pit had been covered, again after a fashion, by one side of the standard of a gin-pit frame, and there was an open space 13 in. wide, and 3 ft. in length. This pit was about 40 ft. from the highway, and the space to the road was open. In each case something had been done since the Inspector complained, but by no means effectively done. The stipendiary fined Mr. PEMBERTON also 20*l.* in each case, but promised to reduce the fine in respect of the pit round which there was the iron hoop to 10*l.* if, after a fortnight, it should be put in a safe condition. He would make no remission in the last case, because the pit was near to the public road. A third summons against Mr. PEMBERTON was postponed for a fortnight.

Men of straw must remember that they cannot escape the consequences of a neglect of the requirements of the law in relation to mines inspection. A fine may be levied by distraint, and they must not think that if they anticipate such an alternative they thereby escape punishment. A notion to the contrary prevails amongst certain of the miners in South Staffordshire, and before this case of FOLLOWS'S a man of a similar station tried to evade the consequences of a conviction under the Truck Act by filing a petition in Bankruptcy, but he was sent to prison nevertheless. The lesson which his case, and that now of FOLLOWS'S, will probably be learnt by those people who need instruction upon the point. We commend it to them, for the profession of mining suffers scandal by such conduct. As to the conduct of colliery proprietors in such matters, we cannot but express our surprise that there should be any instances in which fencing of a secure and creditable character is not put up. If it should happen to have been overlooked up to the time of a complaint by a Government Inspector, it should certainly then be attended to with that vigour which, when the interposition of the law is invoked, it shall be patent to the public that there is not even a semblance of disregard by the owners of collieries to the sanctity of human life.

THE MIDLAND INSTITUTE OF MINING ENGINEERS.

During the last two or three months the desirability of forming associations for the promotion of all those branches of science, mechanics, and practical knowledge, calculated to ensure the safe working of our coal mines, has been so forcibly apparent that in several districts efforts have been made at one and at the same time to carry out that object. Amongst those bodies which have so far succeeded in forming a large and powerful combination of viewers, stewards, and persons who have the management of collieries—the underground workings at least—the Midland Institute of Mining Engineers will, undoubtedly, take first rank. Started by a few persons in the Wakefield and Barnsley coal districts, it has already assumed large proportions, and is daily adding to its strength, and it is said at its commencement will absorb a small society, which for some time has held its meetings in Leeds. The rules for its government are already prepared and accepted, and as they have been framed with great care, and on a basis which we believe will be of a thoroughly permanent character, the promoters are to be congratulated on the great success which has attended their persevering efforts under circumstances which at times were far from encouraging. We, therefore, hail with satisfaction the formation of the Institution, well knowing that it will have plenty of work to do, and be the instrument of adding considerably to our present stock of knowledge with regard to mining operations generally. Through the interchange of ideas it may be that a better means than at present is known may be found for successfully opposing the miner's deadliest enemy, the overpowering gas, by an improved mode of ventilation, and the best means of working the coal, and drawing it to the surface, as well as various other matters connected with the operations of the miner, and also with regard to his safety. Much in that direction remains to be done by such institutes as we have alluded to, seeing that the field of scientific investigation in scarcely any branch of our national industry is so vast or interesting, or so worthy of the pursuit of the philanthropist or the man of genius, as that relating to the safe working of our mines and the safety of our miners. In relation to those objects, so many branches of science are involved that scarcely a limit can be placed on the amount of research which is open to the practical man and the student. The mining and mechanical engineer, the geologist, mineralogist, and the meteorologist, as well as others, have opportunities for the greater development of the pursuits in which they are interested in the endeavour to improve the present mode of raising coal, and lessening the danger attending it. The knowledge obtained from such sources will be gladly received by our colliery stewards, who will only be too happy on seeing the feasibility of any assumed improvement or invention of testing it practically, with a view to its general adoption if successful.

Of the advantages of such an Institute as that just started in Yorkshire, we need only look to what has been accomplished by the one in the North of England, which has its head quarters at Newcastle, and the great success of which is to be seen in the volumes of its proceedings, in which are to be found the comprehensive and able views of the late Mr. NICHOLAS WOOD, and of other eminent mining engineers in which the North of England is so rich. Its present president, Mr. GEORGE ELLIOT, M.P., is a man of great ability and originality, as was shown by his recently delivered address, in which he opposed the views held by some eminent men as to the exhaustion of our coal fields, believing that there are yet vast deposits which it will take ages to exhaust. Another kindred body, the South Yorkshire Viewers' Association, which was established in 1857, under the presidency of Mr. J. T. WOODHOUSE, of Derby, gave promise of doing much good in South Yorkshire. Notwithstanding, however, that its head is one of the first mining engineers of the day, the association did little or nothing towards advancing the science of colliery engineering, beyond the reading of some four or five papers in something like ten years. The members have now joined with the Midland Institute, and there is no reason to doubt but the combination will be in every way successful, seeing that the new body extends its operations into several counties, and includes within its pale the large body of colliery stewards, on whom more than any other depends the working of our coal mines, and the safety of the men engaged in them.

The Midland Mining Institute, we believe, will extend its operations through the whole of Yorkshire, Derbyshire, Nottingham, Leicester, and Warwickshire, and in which at present there will be at least 59,000 persons engaged in the coal mines. In the first-named county are to be found some of the fieriest collieries in the kingdom, amongst which it will be sufficient to mention Darley Main, Lund Hill, Edmunds Main, and the Oaks, all of which have been the scenes of appalling catastrophes. In the other districts gas is to be found, and fatal explosions have taken place, but not to any very serious extent when compared with the pits just named. It is, therefore, evident that any system which will be an improvement on the present one for the ventilation of our mines would be a real blessing, and if for that object alone the establishment of an association cannot but be looked upon with satisfaction. Although the Institute will extend its operations some 60 or 70 miles in length, yet the whole may be said to include one great coal field, seeing that the principal seam worked in Yorkshire commences at its southern extremity, in the neighbourhood of Cinder Hill, near Nottingham, and then through Derbyshire, &c. The seam, of course, varies in thickness, that in the vicinity of Barnsley being the most valuable. The coal in all the counties is only partially developed, so that their increase in mines and mining population will be greater than in most other districts in the kingdom. At the present time many new pits are being opened out, more especially in Derbyshire, where the population is rapidly increasing, and villages, approaching the proportion of towns, spreading out in

all directions. The collieries in the Midland district are also found to be the most productive, and the output from them the largest in the kingdom, as will be seen from the following table :—

Table of the Production of Coal for 1867 *in Great Britain and Ireland, and Production per Colliery per Year:—*

Districts.	Tons.	No. of collieries.	Tons per colliery per year.
Durham and Northumberland	24,867,444	307	81,001
Cumberland	1,512,514	25	60,500
Yorkshire	9,843,575	454	21,681
Derbyshire	4,550,550	150	30,337
Nottinghamshire	1,575,000	24	65,625
Leicestershire	1,150,000	11	104,545
Warwickshire	880,850	15	58,723
Staffordshire and Worcestershire	12,526,554	689	18,180
Lancashire	12,841,500	353	36,378
Cheshire	935,000	39	23,974
Shropshire	1,558,500	62	25,137
Gloucestershire and Somersetshire	1,975,000	110	17,954
Monmouthshire	4,569,500	92	49,668
South Wales	9,092,300	329	27,636
North Wales	2,371,250	75	31,616
Scotland	14,125,943	481	29,367
Ireland	125,000	34	3,676
Total	104,500,480	3250	32,153

We have every reason to believe that the Midland Institute, from the promises of support it has received from the principal colliery owners and others, will achieve a large amount of success in a pecuniary point of view, as well as in a scientific one, seeing that in its ranks there are many men of high attainments, great practical knowledge and untiring energy. From them we may naturally expect in a short time some addition to our present stock of scientific knowledge as to the best means for the working of our mines in the Midland coal field, as we have not yet reached that point with regard to them where we can afford to delay investigation even for a short time, as the records of the past month abundantly testify.

RENOVATING OLD RAILS—NEW WELDING PROCESS.

An ingenious process for patching up old rails has for some time past been successfully employed on the Great Western of Canada Railway, as well as upon certain lines in the United States, and from the small cost at which the repairs can be effected, the invention could probably be applied in this country, especially for repairing rails to be used in sidings and other places where their failure would be comparatively unimportant. Mr. Baines, of the Toronto Steel, Iron, and Railway Works Company, the inventor of the process, has now given it three years trial, and in May last Mr. G. L. Reid, the chief engineer of the line, certified that the rails thus repaired are much superior to those mended by the hand swage block, both in point of durability and workmanship. The welding is much more thoroughly executed and the form of the rail is more perfectly preserved, even in cases where the ends have been so badly bruised as to necessitate their being cut off altogether under the old hand system of repairing. A large number of the rails repaired by Mr. Baines two years ago are still in the track and in good condition; in fact his experience has been that in nearly every case the mended portion outlasts the body of the rail.

The rails to be operated upon are prepared for the heat in batches of ten, by placing on the ends a patch of iron of the requisite length and thickness, tapered towards the centre of the rail. The rails are then slid into the furnace, which is constructed with doors on opposite sides, so as to admit of their being passed entirely through, thus affording means to subject any part, 4 feet in length, with the patch to a welding heat. One rail at a time is withdrawn and placed on a carriage moving on a truck, which carries it opposite the rolls. Passing under the rolls only so far as the welding heat extends, the motion is reversed, and the rail returns thoroughly welded from under the pressure of 8 tons. The rail is then turned on its side, and passed under the finishing rolls with a pressure of 12 tons, and leaving which a circular saw cuts it to the standard length. It is then removed to be straightened and punched in the usual manner.

With reference to the advantages possessed by the process, it is claimed that any rail, however badly damaged, can be thoroughly repaired; that the weld being the work of a few seconds, when the iron is at the exact welding heat, is necessarily much better than one formed by a repetition of blows on a rapidly cooling material; that the ends of rails repaired are uniform in height and section, and must fit the fish-plate; that an excess of iron in the patch provides that a sufficient length shall be sawed off to secure a thoroughly welded end. In this respect the swage block is defective; and that railroad companies fortunate enough to own good iron, even if badly worn, have now the means of retaining such rails in their track for two or three years longer, instead of delivering first quality bars to the rolling mill and receiving in return, in too many instances, rails of a very inferior quality.

MINERS' SAFETY-LAMPS.—Mr. Thomas Heppell, of Pelaw Main Collieries, Durham, has specified the nature of his invention for improvements in miners' safety-lamps, by which the risk of explosion is diminished, the light from the flame of the lamp being transmitted through suitably arranged glass surfaces, and thus furnishing a less obscure light than is obtained from lamps where the light is transmitted through wire-gauze. Above or around the oil-holder of the lamp he arranges a chamber which is perforated around the outside, the air entering the chamber through these perforations. The top of the chamber serves as a support for the glass surfaces or cylinders which surround the flame, and the top of the chamber between the support for the glass and the centre opening (into which the top part of the oil-holder screws) is perforated so as to allow the air to pass out of the chamber to supply the flame of the lamp. The chamber of the lamp around the flame may be formed by means of one or more glass surfaces, but Mr. Heppell prefers to surround the flame by two concentric glass cylinders, the glass surfaces being so arranged that should injury arise to the inner cylinder or surface of glass by contact with the flame or otherwise, the outer cylinder or surface will remain to protect the flame, while the portions of the inner cylinder if broken will in most cases fall upon the wick and extinguished the flame. Should injury arise to the outer cylinder or surface of glass from an accidental blow or otherwise the inner cylinder will remain to protect the flame. Above the flame the products of combustion pass away through a chimney, the top of which may be perforated, or the opening may be protected by wire gauze. Within the chimney is an inner chimney or contractor, so that should the lamp be exposed to an explosive mixture of air it will check the escape of the products of a too rapid combustion, and so extinguish the flame. The lamp is provided with an outer frame for connecting and supporting the parts enumerated, and a cap provided with a ring or handle is mounted upon such frame over the chimney of the lamp to divert and disperse the heated air arising from it.

NEW IRON-MAKING PROCESS.—An improved and very economic process of manufacturing wrought-iron is at present regularly in use at the works of Messrs. Schönberger, Pittsburgh, U.S.; it is the invention of Mr. Ellerhausen, of the same place. On the casting floor of the smelting furnace a cast-iron turn-table, about 18 feet in diameter, is revolved on rollers by a small steam-engine. Upon the outside edge of the table stand a row a cast-iron partitions, forming boxes (say) 20 in. wide and 10 inches high, open at the top. Just above the circle of boxes stands a stationary wide-mouthed spout, terminating in the tap-hole of the furnace. When the furnace is tapped the liquid iron runs down this spout, and falls out of it in a thin stream into the boxes as they slowly revolve under it, depositing in each a film of iron (say) ⅛th of an inch thick. But before the fall of melted iron reaches the boxes it is intercepted, or rather crossed, at right angles by a thin fall of pulverised iron ore, which also runs out of a wide spout from a reservoir above. These two streams or falls are of about equal volume (say), ¼ in. deep and 20 in. wide. A workman, with a bar in the tap-hole, regulates the stream of iron, and the iron spout from which the liquid metal falls into the boxes is removable; other spots, previously coated with loam and dried, being attached to a common revolving frame, so as to be ready for use when the loam covering of the first becomes cracked or removed. The thin layers of iron and ore soon chill and solidify, so that by taking away the outer partition of the boxes (which form the rim of the turn-table) they may be removed in cakes of the size of the boxes, and weighing about 200 lbs. each. Four of these cakes or blooms are put into a reverberatory puddling or heating furnace, and raised to a bright yellow heat. They will not melt at this heat, but become softened, so as to be easily broken up with a bar. The four blooms are formed in the furnace by the "rabble" of the workmen, as in ordinary puddling operations, into eight balls. The balls are brought out one after another, squeezed in the ordinary "squeezers," to expel the cinder and superfluous ore, and then rolled into wrought-iron bars, which are now ready for market, or for further reduction into smaller finished forms. A remarkable feature of the Ellerhausen process is that absolutely no skill is required to carry it out. The proportion of ore mixed is intended to be about 30 per cent., but if too much is added it is readily squeezed out with the slag, and seems to do no harm. The subsequent heating occupies about half an hour. "Puddle bar," the product obtained from the first rolling of the product of the puddling-furnace, is never marketable or finished iron. It is usually very ragged and unsound, and requires subsequent pilling, re-heating, and re-rolling to expel the impurities, and to give it soundness and solidity. By the new process merchantable iron is produced at the first rolling, and, of course, at a much lower price.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Mr. W. R. LAKE, of Chancery-lane, has obtained a patent for an apparatus for generating and burning the vapour of naphtha (communicated to him from abroad by Joseph Weatherby Bartlett, of New York, United States of America). This invention relates to an apparatus for cooking and similar purposes, which is heated by burning gas or vapour produced from petroleum, naphtha, benzine, or other inflammable liquids, which gas is mingled with the vapour of water and with atmospheric air at the time of combustion. In carrying out this invention, a portable stove is preferably used, supported upon a stand at a convenient height from the floor. The stove is preferably constructed of cast-iron, with a flat top, which is provided with apertures and movable covers, to support cooking utensils of various sizes. The burners are arranged below these apertures in the body of the stove, whose sides are perforated to admit air. The burners are formed with very small orifices, to prevent danger of explosion by the contact of flame with the liquid in the tube at the time of lighting the burner. The cups or basins for containing the water are preferably fitted into the bottom of the stove-body below the burners, and may be perforated near the top to admit air. The said cups will also catch the waste liquid escaping from the burners. The tube over each burner is provided with a plate or disc, which is removed to allow access to the burners on lighting the same, and is then replaced. The reservoir is a can, which is provided with an aperture in the top, through which the liquid is introduced. This aperture has a screw-cap, or other tightly-fitting cover, and is separated from the body of the can by a strainer formed of perforated tin or wire-gauze, which prevents any danger of igniting the liquid in the can.

Mr. W. SHEAN, of Bedford-row, has specified an invention relating to the manufacture of explosive compounds (communicated to him from abroad, by Johann Friedrich Eduard Shultze, Potsdam, Prussia). This explosive compound is prepared in a very simple manner. Upon a table a quantity of wood gunpowder is spread, or placed in a comparatively thin layer; the required proportion of nitro-glycerine is then poured upon the wood gunpowder, and the whole mixed carefully together by the hand, until the powder has been evenly and thoroughly impregnated by the nitro-glycerine, and the explosive compound, called "dualine," is then formed. By using this compound the inventor is enabled to produce, with great economy, the different degrees and kinds of force appropriate to blasting operations in all the different kinds of mines, from the hardest rocks to the least resisting earths. This mixture is also available for blasting rocks containing cavities, because its combustion is so instantaneous that the force is immediately applied.

REPORT FROM NORTHUMBERLAND AND DURHAM.

FEB. 11.—The Coal Trade in Durham continues to improve, so far as the coke and gas coal is concerned, and also manufacturing coal, but for all other descriptions the demand is flat. From the steam coal district in Northumberland there are no better accounts, and many of the works are doing very little indeed. What is to become of the collieries there if no improvement takes place soon it is difficult to say. Unless a change takes place a great migration of workmen must be inevitable, indeed a considerable number have moved further south within the last few months.

An endless-chain, similar to those in common use in the South of England, has been got to work at one of the Rainton collieries, on the Wear—that is, to haul the tubs along an engine-plane underground. So far as it has yet been tried it has given every satisfaction, and it is fully expected that it will prove perfectly successful, and also that this mode of conveying the coal, in this particular instance, will prove very economical. No doubt this will lead to the adoption of this mode of underground conveyance in many instances in the northern coal field.

The Middlesborough weekly iron market, on Tuesday, was very numerously attended, not only by local firms, but by those from a distance. A moderate amount of business was done in pig-iron, though makers do not now show much disposition to press sales. It can hardly be said, however, that the market is quite so firm as it was a month ago, but no change has been made in the official quotations, which are—No. 1, 49s.; No. 3, 46s. Foundries are tolerably busy. The shipments of iron for last month show a decrease upon the corresponding period of 1868. In make there is an increase of about 2000 tons upon December. Makers' stocks decreased in January 5600 tons. The stocks in hands of makers are now only about 50,000 tons, which is barely a working stock. In finished iron the works are steadily occupied, except for bars, in which department some slackness prevails; but in all cases orders are reported to be somewhat more plentiful. The rail-makers have booked large quantities of orders for forward delivery, but in some cases specifications are wanted for immediate delivery. Engineers are better employed.

An inquest was held at the Blue Bell, Usworth, on the death of William Benjamin, who was killed by the explosion of a boiler at Usworth Colliery. There were present—Mr. Coxon, viewer of the colliery, Mr. Southern, Government Inspector of Mines, Mr. Waller, the Inspector of the Midland Insurance Company, and several other gentlemen connected with mining interests.

JOHN LYNN, engineer at the colliery, said: The boiler which exploded was 30 ft. long and 6 ft. in diameter, with a flush flue. The plates were ⅜ in. thick, and made at Hopper's Britannia Works, Houghton-le-Spring. The boiler had been in use 13 years. It had two safety-valves, and was worked at 35 lbs. It was fitted with floats, sludge-valves, and feed-valves. The boiler takes about 20 minutes to feed, the water being about 120°. The steam-pipe is 9-in. in diameter. About one-half of the back end of the boiler was blown over the pulleys a distance of 298 ft. to the north. The other half was carried in an easterly direction 376 ft., and a portion of the bottom of the boiler was carried in a westerly direction 676 ft. The deceased was blown about 198 ft. over a high wall. I went along the boilers shortly after six o'clock on the morning in question, and found them all correct. I examined the pieces of boiler blown in the direction spoken of. The plates appeared to be all sound, the rents appearing to be more across the plates than by the rivets. There was no indication of there having been any want of water in the boilers. The water with which the boilers are fed is good, the North-Eastern locomotives being fed from it. There was a slight tendency to prime when the boilers were more than usually full. The boiler was thoroughly overnauled about 11 weeks ago by Mr. Frank Elliot, and had four new plates put in the bottom. There is free communication between all the boilers in the range. I have seen the safety-valve since the explosion, and it was open ¾ in.—Mr. USHER, engine-builder at Messrs. Black, Hawthorn, and Co., Gateshead: I examined the exploded boiler. I found it in excellent condition, and thought the metal was very good indeed. The plates were all of an even thickness, and I could find no parts burned. The boilers, similar to the one which burst, are tested to 100 lbs. by hydraulic pressure, and the boilers ought to be safely wrought at 50 lbs. I can give no reason why the boiler burst, and I have no reason to suppose there was a scarcity of water. There was no appearance of burning on the plates, which would have been the case had there been a want of water in the boiler.

WILLIAM SWAN, boiler-maker at Messrs. Black, Hawthorn and Co.'s, saw no direct cause of explosion, but was of opinion that it had been caused by the water being lifted bodily from the bottom of the boiler. A gas of some description would then be generated, and an instantaneous explosion would follow. He could not say what lifted the water, but he believed that it was all the more easily lifted when the boilers were connected together. He knew by experience that water did come up, because he had seen it both through the seams and when the priming takes place.

Mr. WALLER observed that Mr. Fairbairn had disposed of that theory, and he pointed out that no explosion could take take place except there was a mixture of gas with the air.

Mr. COXON also reminded the jury of Mr. Fairbairn's views. He had shown how impossible it was that a dangerous mixture of gases could be generated, and ascribed all accidents to boilers (provided the plates were good) to three causes—mismanagement, defective construction, or want of water, all coming under the head "neglect."——Witness was questioned as to what induced him to come to the conclusion above stated?—In reply he answered that he had found no indication of the plates being heated. The rents of the plates had taken place direct from the bottom, and the boiler was split into nearly two halves. The top and sides were quite intact, and so he judged that the explosion had taken place from the bottom.

The CORONER briefly summed up, and the jury, without much deliberation, found—"That the deceased died from injuries caused by the explosion of a boiler at Usworth Colliery, that the boiler was a good one, but that there was no evidence of any neglect whatever, and why it exploded there was no evidence to show."

On Friday the enquiry was resumed touching the deaths of Daniel Kane, George Boggon, John Coulson, and Thomas Aisbett, by an explosion of fire-damp at Springwell Colliery, on Jan. 29, and Aisbett died on Wednesday night, from injuries received on that date.

CUTHBERT BERKLEY, chief mining engineer to Messrs. John Bowes and Partners, said—The main shaft, which was 15 feet diameter, was divided into two parts by a brattice, the downcast being three-fourths the area. The shaft was 127 fathoms deep to the Hutton seam. The workings of the three seams were brought to the bottom of the shaft. The air from the bottom of the downcast travelled up an inclined stone drift to the Low Main seam, which is 10 fms. above the Hutton seam. The total amount of air passing into the pit was 70,000 feet. The amount of air travelling up the drift was 31,000 feet per minute, 10,000 of which was taken into the Low Main seam. At 180 yards from the top of the drift the current divided, 4000 feet going into the south-west flat, and the remaining portion going eastward to the face of the cross-cuts. That was divided on the face, 3000 feet going north and 3000 feet going south; the latter passed round the workings where the explosion took place. It passed up each place, and was carried by brattices to the face—ventilating seven working places, then to another place north of the down-going bord, one pillar south, then north into the return air-ways, west to the staple in the Maudlin seam, eleven fathoms up, and then westward to the furnace-shaft. The Low Main seam air was entirely fresh, and there was quite sufficient for the workings. The air entered the workings where the explosion occurred at the rate of 107 feet per minute, or 1·8 feet per second.

Mr. JOHN PELL, resident viewer at the Springwell Pit, said that Mr. Berkeley's statement of the ventilation of the middle flat of the Low Main seam was perfectly correct. On the 28th John Parkin, the overman, informed him that all was right. He said he had seen a crack two pillars up, where Wakefield and Kane worked. In reply to witness, Parkin said there was no gas to be seen. He had examined the crack so closely as to put a candle in it. He had never known gas in the Low Main seam. He was in the workings on the Friday preceding the accident, and there was no gas. He did not then observe any cracks. There was plenty of air, and they worked the seam with candles. The master shifter at night was Scorer, and he had charge of the workings. He was relieved by Aisbett at one o'clock in the morning, who always examined the workings with a Davy lamp, and if anything was wrong Scorer was to report it either to the overman or witness, and also to prevent anyone going into that place. The gas came up the first pillar, up from the straight in headways. No crack was now to be found. The Hutton seam, which was below, was worked out, and which, no doubt, contained gas, had probably fallen in. It was possible that the gas had come up through the broken strata from the Hutton seam beneath. Had always found Aisbett and Scorer to be steady men. Had discovered no gas since the explosion. They commenced a new furnace and upcast, which was put into operation on Dec. 31, and the ventilation had been better since. He had made examinations of the seams since the explosion. He had found all in the same state as before the explosion.

THOMAS BROWN, hewer, said that the air was rather damp on the morning of the explosion. He went to his place, and had just got his clothes off when the gas fired. He went back again, and Affleck told him the gas had fired at Wynn's candle. They made three or four attempts to get out and failed; at last they succeeded.

The CORONER occupied but a few minutes in summing up. He thought no doubt existed as to the men having been killed by the explosion, and it was for the jury to see how that explosion had been caused, whether by accident or neglect on the part of the managers of the colliery or others, or whether the pit was worked in a fair and proper manner, according to the custom.

The JURY consulted, and returned the following verdict:—"That Daniel Kane and others were killed by the explosion of gas in Wynn's bord at the Springwell pit on Jan. 29, that the brattices should have been kept nearer the face, that McRae was acting wrong in not taking the advice of Scorer as to his candle and shot, that Thos. Aisbett ought to have laid the flat off when informed there was gas, and that it would be better if the rules of the colliery were made known more generally to the workmen."

CONSETT IRON COMPANY.—At a meeting of the directors of the Consett Iron Company (Limited), held in Newcastle, on Saturday, an interim dividend of 3s. 9d. per share, clear of income-tax, being at the rate of 5 per cent. per annum, was declared.

NORTH OF ENGLAND INSTITUTE OF ENGINEERS.

There was a very large attendance of members at the meeting, on Saturday. The proceedings of the council were first reported by the secretary, from which it appears that the Society of Mechanical Engineers (Birmingham) are to meet in Newcastle during the present year, and suitable arrangements are to be made for their reception. Afterwards several new members, and also graduates, were elected. The discussion on the important report of the Tail-Rope Committee was, for various reasons, postponed until next meeting. [A full abstract of this report appears in the Supplement to this day's Journal.]

Mr Steavenson then procee led to read his remarkable paper "On Lemielle's Ventilator." The paper gives a minute description of one of those ventilators now in full operation at the Page Bank Colliery. It is a very large machine, being 32 ft. in depth, and 23 ft. 3 in. in diameter. It has been worked safely up to 16 revolutions per minute, producing upwards of 8000 cubic feet per revolution, or about 130,000 cubic feet of air per minute. Certainly a large quantity of air to circulate, and such a quantity ought to give both health and safety to the miners. The paper goes fully into the details respecting this machine, and is profusely illustrated by large and beautiful diagrams. Statistics, also, and curves, are given, showing the performance of the machine at various speeds, and under different circumstances. Some idea may, therefore, be formed of the value of the paper, which is of the most exhaustive kind, and the subject is one of the highest importance in connection with mining. After the reading of the paper there was a discussion, in which Mr. Cochrane took part, and he gave some particulars respecting the Guibal Fan. The real discussion of the paper, however, was postponed until next meeting, when further particulars may be expected respecting the Lemielle Fan working at Washington Colliery, and some account may also be expected respecting the working and capabilities of the Guibal Fan, so that the merits of those fans, as compared with each other, and also as compared with the old ventilating furnace, may be expected to be fully elucidated very shortly.

REPORT FROM SCOTLAND.

FEB. 9.—Pig-Iron fluctuates very little in price since the commencement of the year, and the warrants being lifted out of the market as soon as bought, and held in strong hands, prices are again firming, and may go higher. If only Middlesborough pigs could be kept out of competition with ours, prices would instantly advance, as stocks are low in Staffordshire, and quotations have been enhanced there, calculations are in favour of an advance in minerals in course of another month. With this view several of the Scotch makers are inspecting their outed furnaces, and those belonging to Dixon's trustees at Govan have commenced to emit smoke. The business done in pig-iron during the week was not large, and was mostly placed in store, the quantity shipped for the week (8250 tons, against 4210 tons in the corresponding week last year) being direct from the makers. The closing prices of last week were 55s. 3d. cash, and 55s. 4d. a month; this week the market opened better, 55s. 6d. cash, and 55s. 9d. a month having been accepted. Market without animation to-day, and only about 500 tons reported, at 55s. 7½d. cash; closing sellers 55s. 7d. cash, 55s. 8d. a month; buyers 1d. less. No. 1, g.m.b., 55s. 9d.; No. 3, 53s. 3d. Gartsherrie, 62s. 6d.; Coltness, 61s. 6d.; Calder, 58s.; Glengarnock, 57s.; Eglinton, 55s. 6d.—all No. 1. Makers of Malleable Iron have had a few more offers of specifications for bars this week, which were taken at current quotations—6*l.* 12s. 6d. up to 7*l.* Angle-iron and plates are also in demand, at prices as last quoted. Pipe-makers are full of orders, and there is a demand for architectural and marine castings, which is keeping ironfounders fully employed. In the report on "Factories and Workshops," Mr. Redgrave gives the following enumeration for the northern district (including Scotland), but unaccompanied with any explanatory remarks:—Under the Act of 1867—Blast-furnaces, 57; copper mills, 14; iron mills, 33; foundries, 774; manufacture of machinery and metal, 2672. This enumeration by itself is deficient and inaccurate, and it is to be regretted that fuller details were not furnished by the Inspector.

Coals are rather worse than better, and at present prices some of the larger masters are purchasing from the smaller, rather than part with their own output at present quotations. Some have stopped working for a time, and others, again, having given notice of a reduction, are accepting of a "strike," and will stand idle rather than continue their present loss. All over the county miners' wages are being reduced, and, with few exceptions, the men are going in on the reduced terms. Shipments are also falling off, those for this week being 21,550 tons, against 23,160 tons in the corresponding week of last year. There are a few strikes here and there of isolated pits, but, if the districts yield, it is more than folly for single works to try to reverse the tide.

During the month of January last 11 vessels were launched in the Clyde, 10 of which were iron, of 10,621 tons; and one composite, of 720 tons.

THE SUTHERLANDSHIRE GOLD FIELDS.—The gold appears scattered over a large tract of country, but some of our friends who have

gone north think that the Sutherland gold mines are not sufficiently remunerative to warrant parties to go thither, unless they would be content with quantities of precious metal varying from 2s. 6d. to 12s. or 15s. a day. There is no doubt, they say, about there being gold, but it is in such infinitesimally small quantities that few will have the perseverance to continue long to search for it. The fact is, there seems to be different opinions about the value of these gold fields by experienced diggers, who have visited the country, and, perhaps, the truth will be found to be between their irreconcilable statements.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

FEB. 11.—The Iron Trade both of North and South Staffordshire continues very quiet, especially for the latter district, in the demand for the heavier makes, as plates, in the production of which the North of England is now a very important competitor. The mildness of the weather gives promise of the early opening of many of the ports closed in winter by the frost, which will help to restore activity. The demand for pig-iron has been tolerably good for some time in South Staffordshire. The long depression there had greatly reduced the number of furnaces in blast, and since wages and prices were lowered more pigs have been converted into manufactured iron, stocks have been worked off, and several additional furnaces have been blown in. The extent to which the make of pig-iron had been reduced must be remembered before the comparative demand for pigs now is accepted as any proof of general activity, which certainly cannot be asserted of the trade of these two districts. So far the promise of the autumn has by no means been realised, and the trade is now assuming a somewhat less hopeful aspect.

A case of some importance under the Master and Servants Act, of 1867, has been decided by the Bilston magistrates. Isaac Brueton, a sheet-iron roller, in the employ of Mr. H. Dale Simencourt, who carries on a portion of the Spring Vale Iron Works, summoned his employer before the magistrates with a view to recover 5*l*. 9s. 9½d. for dismissal before the expiration of a contract. The magistrates awarded 4*l*. as damages to the complainant, but the defendant contended that the justices had no jurisdiction; that as the subject matter of the claim was for compensation under a contract, it should have been heard in the County Court. A case was asked for and granted, which sets out at length the grounds of the decision of the magistrates, which are, to speak broadly, that the Act of 1867 confers upon justices the power of adjudicating in a question of this nature. The point is important, and it is satisfactory to have it thus raised in a shape likely to lead to an authoritative statement.

The *Pall Mall Gazette* states that the much-vaunted Krupp steel gun of Prussia has proved to be defective. It was always doubted whether so large a mass of cast-steel as was required for boring out this gun could be ensured to be of homogeneous character. It was hoped that the plan of making steel gun-barrels patented by Messrs. Deakin, Johnson, and Co., of the Albion Works, in South Staffordshire, would be found applicable to large ordnance, but at present this application of the invention has not been carried out on any scale.

Mr. Spooner, the stipendiary magistrate for South Staffordshire, at Wolverhampton, yesterday, imposed some very heavy fines—in two cases of 20*l*.—from informations by Mr. Baker, Inspector of Mines, for neglecting securely to fence pit shafts. As Mr. Spooner travels about the district a good deal, no doubt he often sees proofs of the disregard of the precautions against accidents from falling down shafts which the statute very properly enjoins.

At a meeting, yesterday, of the creditors of the Trench Iron Company, at Wellington, it was stated that the unsecured debts amounted to about 25,000*l*. A committee of five persons was appointed to investigate the position of the estate, and to take an immediate assignment to themselves.

An explosion of fire-damp occurred on Wednesday, at the Woodshutts Colliery, about half a mile from the Talke pits, the scene of the 1867 catastrophe. Four men, named James Harris, Thos. Cooper, James Griffiths, and W. South, were killed. There are 150 men employed in the pit, but the four men killed were the only ones at work where the explosion occurred, in what was known as the Bambury seam. Directly the explosion occurred an exploring party descended but there was so much gas present that it was seven hours before they were able to recover two of the bodies. In the pocket of one of the men killed there was found a pipe, tobacco, and a duplicate key, with which to open his lamp. The other two bodies have not been yet recovered.

THE HIGHFIELDS FOUNDRY, BILSTON.—The present sole proprietor of this foundry—one of the most extensive in South Staffordshire—is Mr. Thomas Perry, a son of the gentleman by whom early in the century the works were originally established. More than 600 workpeople now find employment here, and the plant and machinery are not surpassed for extent and variety by any similar establishment in the district. The engineering department is under the management of Mr. Wheeldon, and Mr. Smith superintends the other branches of the trade. In proceeding to describe the more important work now in process of manufacture at Highfields, we may remark that it is noticeable how great a proportion of the mill and forge machinery is intended for iron works in the Lancashire and Cleveland districts. This is by no means peculiar to Highfields. The same fact is reported by all the leading ironfounders in the district, and it indicates the rapid increase of competition to which the Staffordshire iron trade is being subjected by these and other rival districts. Among the works in active progress at the time of our visit were:—A huge pair of guillotine shears for cutting 15 in. × 2 in. iron, and a vertical rolling mill engine (85-horse power), both for the Cleveland district. Four 6-feet cylinders, a pair of roll "housings" or frames, and two steam-hammers for Lancashire. Also for the same district we noticed a fly-wheel rim weighing over 20 tons. Two pairs of chilled rolls, 18 in. diameter, and 2 feet 6 in. long, turned, ground, and polished with the greatest accuracy; also two pairs of smaller rolls for finishing sheets and strips of gold and silver for coining purposes. These are for one of the Continental Government mints. A train of rolls, 7 in. in diameter, 3 high, for rolling wire-rods, to be driven at a greatly accelerated speed by means of Perry's patent machine-made wheels. A spur driving wheel, in process of moulding by one of Mr. Thomas Perry's patent moulding machines. The wheels moulded in this machine have the teeth divided and set out by a dividing engine. A segmental pattern, having three or four teeth, is then fixed on the moulding machine, and the teeth are moulded, one or more at a time, until the entire circle is completed. When the segment reaches a starting point, the pattern is found to fit again into the first tooth, moulded without the slightest variation. Indeed, all the wheels moulded by this machine are mathematically exact. Messrs. Perry and Son possess numerous testimonials of the great accuracy and extraordinary strength of their wheels, from firms of the highest standing who have used them. Some time since, spur-driving wheels were moulded by this machine for the Barrow Iron Works, 20 feet in diameter, with 18-in. "face" and 8-in. "pitch." This shows the capability of Perry's moulding machine, as compared with similar inventions patented by Mr. Jackson, of Salford, and other well-known engineers. The quality of iron used at these works, for wheels and other purposes where strength is required, is the best that can be found, and test bars or the actual "runners" of every casting are broken in a testing machine on the hydraulic principle. It is no unusual thing to meet with bars 1 in. square and 3 feet long between the supports, bearing upwards of 11½ cwts. in the centre before breaking. Twelve "runners" of castings were sent by this firm some time ago, to Kirkaldy's Testing Works in London for trial, and gave an average of 45 per cent. above the average of Messrs. Fairbairn and Hodgkinson's table, and also gave results much above those obtained by the Government in the Royal gun factory at Woolwich. One of these "runners" was tested for our inspection. It was about 6 feet long by 3 × 2½ in diameter, and although two or three brawny smiths armed with heavy sledge hammers did their utmost to break it, they made not the slightest impression. Were all the machine castings made of such iron, we should hear less of breakages now so common in the mills and forges of the Black Country. The supplementary branches of manufacture at Highfields, include metallic bedsteads—of which 900 are turned out every week—and fire-proof safes and deed-boxes of every variety.—*Iron Trade Review.*

REPORT FROM DERBYSHIRE AND YORKSHIRE.

FEB. 11.—The Coal and Iron Trades in Derbyshire remain without alteration, neither of them being at all active. Still several large collieries are being opened out in different districts, so that the opening of the new line between Chesterfield and Sheffield, which is expected to take place in September, will be the means of bringing into the various markets a large tonnage of minerals by the Midland Railway, which it is evident will become the principal purveyor of coal to the metropolis and the South. Owing to that company not having until now a line to London direct, the Great Northern and the London and North-Western have had the main part of the carriage between them; but that will now be altered, as will be seen from recent returns, which show that during the past two months the Midland has trebled its previous carriage of coal to London. The speculations entered into by some gentlemen to bring into working condition several collieries which were abandoned some years since, and had become filled with water, is now bearing profitable fruit, and will do more so eventually. The Lockoford Colliery, once the property of Mr. George Stephenson, the eminent engineer, when he resided in the neighbourhood of Tapton Hall, has been very successfully resuscitated, and shortly will give employment to something like 400 men. Mr. George Senior's enterprises are also likely to turn out remunerative at his colliery at Hasland; the water is being greatly reduced, every day being diminished at the rate of about 18 inches. When pumping was first commenced, about four months ago, there was nearly 125 feet of water in the colliery, whilst at the present time there is not more than 25 feet. At the pit in connection with it, known as the Whitebank, which was also filled by water, coal is now being got, and a siding from it to the Midland line has just been completed. Workmen are now engaged in driving two levels, one to the rise and the other to the dip, whilst donkey engines are used for pumping. Great credit is due to Mr. G. Senior for the energy and enterprise he has shown under circumstances so very discouraging on taking the two pits which for many years had been filled with water; and we are glad to find that his efforts and spirit are likely to result very shortly in a large pecuniary triumph.

There is little alteration in the state of trade in Sheffield, some of the heavy branches of which are more active than they have been. The leading iron works in the district are kept well going, and an improvement is confidently looked forward to. At Milton and Elsecar the rail and other mills are in full swing, and there are some large orders in hand for various qualities of manufactured iron. The firm, it is said, are about to erect some more rolling-mills, so that the district promises to increase in importance as well as population.

The demand for coal from the South Yorkshire district is still quiet, and the tonnage going to London is but of a limited character. There is, however, more doing with Lancashire, the Manchester, Sheffield, and Lincolnshire Railway Company having just reduced the carriage rate of slack to Ashton and Stalybridge 2d. per ton. The result of the concession, we believe, will be found to the advantage of the railway company more than to the coal proprietors. Should the Great Northern adopt a similar course, and comply with the memorial presented to the directors some time since, asking for a reduction of the present rate to London, there is not the slightest doubt but what the result would be a large addition to the revenue of the company, and a boon to the colliery owners as well.

At a recent meeting of the Midland Mining Engineers' Institute, Mr. W. H. Spring, of Warrington, the proprietor of the patent of Mr. Harding for locking safety-lamps, was present, and exhibited a lamp with his fastener attached. It was examined by several gentlemen, all of whom spoke in high terms of the invention, which they considered was a truly valuable one, seeing that it would be all but impossible for a miner to open a lamp without discovery. Mr. Miller, of the Strafford Main Collieries, said he was using the patent fastener, and considered it ought, as a matter of safety, to be generally adopted. Mr. Minto, of the Oaks Colliery, also bore testimony to the efficiency and value of the invention, remarking that on looking at a lamp you can detect in an instant whether it is locked or not, whilst the rivets could not possibly be cut without detection. It was also stated that the patent fastener was adopted successfully at the collieries of the Messrs. Briggs and Co. (Limited), of Normanton. Seeing that the fastener can be attached to a lamp in less time than the ordinary padlock or screw, and that one man can fasten from 500 to 600 in an hour, the invention appears to be one that is likely to come into general use throughout the kingdom.

FLOODING OF A COAL PIT NEAR MANCHESTER.—An alarming accident occurred on Thursday, at Messrs. Grieves, Ashworth, and Co.'s, Swinham Barn Colliery, near Crawshaw Booth. The colliery is close to the reservoir at Clow Bridge, with which it communicates by what is termed a a "loose." From 15 to 20 men were engaged in the pit at the time stated, when a large body of water burst in from some old workings. The majority of the men were in a high level, and they were soon rescued. Five men and boys, however, were in the lower levels, and for several hours it was feared that their lives would be lost. At length the "loose" mentioned was opened, and the water drained off. The imprisoned men fortunately had succeeded in getting on a slope out of reach of the water, and in maintaining this position for five hours. When rescued they were much exhausted.

THE RAINFORD COLLIERY ACCIDENT.—The coroner's enquiry into the accidents at the colliery of the Rainford Coal Company last month closed on Thursday. The jury returned a verdict to the effect that seven of the deceased were burned by the flames from the burning coal, but there was no evidence to show how the reversion of the air was caused; and that the other two deceased were killed by accidentally falling down the pit.

REPORT FROM MONMOUTH AND SOUTH WALES.

FEB. 11.—Something like activity is being witnessed at the local ports in the shipment of rails to New York, San Francisco, Taganrog, and Peru; and as there has been no stowing-room for two or three weeks past at the Newport Docks, where by far the largest quantities are awaiting shipment, the clearances now being made will be rapidly filled up, the rail-mills in the district being fully employed. A more speculative feeling is being gradually imparted to the trade, and as an advance in prices is looked upon as a certainty before long, the present time offers a great inducement to enter into such transactions, as there is every probability of large profits being eventually realised. During the past week makers in this district have obtained several fresh orders from New York, which, together with the large contracts lately entered into, give to the trade a cheering prospect for the future, and will cause greater activity to be witnessed at the works as the spring season advances. Rails are about to be shipped to New Orleans, Philadelphia, Bangor (Maine), St. John's, N.B., Providence, Boston, Porto Caballos, Norfolk (Virginia), Vera Cruz, Leghorn, Constantinople, Nantes, Alicante, and Valparaiso; and to several of the continental markets large quantities of bar are to be sent forthwith. In addition to the Russian engagements lately entered into, a large contract is about to be given out for that country, and which makers in this district are rather sanguine of obtaining. Continental orders are not coming to hand so readily as was anticipated, but as war between Greece and Turkey will, in all probability, be averted, it will tend greatly to produce more vigour in the market, and restore it to something like its former prosperity. Home contracts are being given out with greater freedom, and at the present time several large contracts are in the market. Prices generally have not advanced, but makers continue to adhere firmly to late quotations, and they evince no anxiety to enter into large contracts for forward delivery at present prices, feeling assured an advance will shortly take place. There is a fair demand for bars, principally for the continental markets. Pigs of the best brands sell readily at current quotations. The demand for Tin-plates is sufficient to keep the mills in the district fairly employed, and makers adhere to the prices fixed at the last Quarterly Meeting.

The severe gales which have prevailed at short intervals during the past week have tended to interfere with the shipments of steam coal, the demand for which from the mail packet stations and some of the South American ports is greater than has been known for some time past. Several large vessels are now being laden at the local ports with coals for the East, and should the weather turn out favourable the clearances during the present month will be something considerable. There is a falling off in the demand from the French markets, owing to the large stocks on hand; but from the continental markets, and some of the Mediterranean ports, enquiries are fully up to the average. Coal proprietors still complain of the keen competition with the ironmasters of the district, and such, no doubt, will continue to be the case until a more uniform standard of wages is adopted in place of the present irregular scale. The same cause will also check operations at the collieries, and prevent any new works being opened up; therefore, the sooner an adjustment is arrived at the better will it be for the welfare and prosperity of the district. There is a slight improvement in the house coal trade, but its present position is considered far from satisfactory.

Mr. Edward Williams, an ex-colliery proprietor, at Loughor, was brought up on remand at the Swansea Police Court, on Tuesday, charged with having forged two bills of exchange to the amount of 411*l*. The report of the first examination was given in last week's Journal. It will be remembered that Williams was charged with forging two bills of exchange, amounting to 411*l*. 13s. 4d., which had been tendered and accepted as payment to Mr. Leeder, auctioneer, Swansea, for machinery supplied and money lent. When the bills arrived at maturity, Mr. Leeder found to his astonishment that the name attached to them was asserted to be a forgery. The acceptor of the bill was supposed to be Mr. Edward Thomas, of Braich Cymmer, near Bridgend, the father-in-law of the prisoner. He was placed in the witness box, and, having been sworn, he said the signature to the bills produced was not in his hand writing, nor had he authorised anybody to sign them. This was the whole of the evidence given, and the prisoner was again remanded, to enable Mr. Clifton to appear for him on Monday next. The prisoner was deeply affected, and, as bail was not forthcoming, he was removed in custody.

Mr. J. T. Green, the underground agent of the Aston Vale Iron and Coal Company, has accepted the underground agency of the Tredegar Iron Works, a position of far greater responsibility, as will be seen from the fact that the works yield 500,000 tons of coal annually, and keep seven blast-furnaces at work. Mr. Green had a connection with the Aston Vale Company during a period of eight years, and his superior abilities and sound judgment were of great value to the proprietors, while his urbanity, uniform kindness, and strictly honourable conduct, gained for him the esteem and goodwill of the men. When it became known that he was about to leave, a general wish was expressed that he should carry away with him some tangible testimony of their appreciation of his conduct during his stay among them. A subscription was set on foot, and 20 guineas were subscribed by about 240 of the workmen, and a very handsome gilt timepiece was purchased, and presented to Mr. Green by the manager of the work, Mr. E. Williams. The testimonial bore the following inscription:—"Presented to Mr. James Thomas Green, by the workmen employed at the Aston Vale Colliery and Iron Works and a few friends, as a mark of respect and esteem, on his leaving the works."

An explosion took place at Fforchaman Colliery, on Tuesday morning, by which three men were killed and eleven more burnt, two of whom are not expected to survive. The explosion arose, as most colliery accidents do, from a violation of the rules by one of the men. As soon as work was commenced on Tuesday morning a man named Griffiths (who a day or two before had asked the foreman's permission to use powder for blasting purposes, which had been refused) bored a hole to blast the coal, which is a very hard quality. He was cautioned by another workman not to apply the fuse, but this caution was disregarded. The charge exploded, Griffiths and two other men were killed, and eleven others who were working near were badly burnt. No gas was discovered by the firemen in any part of the pit that morning, and a remarkable feature of the accident consists in the finding of a tin generally used for carrying powder with the neck blown to pieces, whilst a paper bag containing 1 lb. of powder was found immediately after the explosion on the rubbish close by. Had there been any gas present that powder would most certainly have exploded. The three deceased were all married, and leave large families. The pit belongs to the Powell Duffryn Steam Coal Company, of which Mr. G. Elliot, M.P., is chairman.

At the Bristol and South Wales Wagon Company sixteenth half-yearly meeting, held at Bristol, on Wednesday, Mr. J. Perry, Chairman of the board of directors, presiding, there was a large attendance of shareholders. The secretary read the report, in which the directors stated that it was gratifying to find that there was a disposable balance of 925*l*. 12s. 6d. in the revenue account, after carrying 203*l*. 4s. 11d. to the depreciation fund, being 5 per cent. on the cost of wagons let on hire, which will enable them to recommend that a dividend should be declared at the rate of 10 per cent. per annum, with the addition of a bonus of 1s. per share, being together equal to 12 per cent. per annum, leaving a balance of 27*l*. 18s. 6d. to be carried to the current half-year's account. The rolling-stock consists of 5504 wagons and carriages, being an increase of 255 during the half-year, after deducting 114 sold and redeemed. The Chairman expressed the gratification the directors felt in being able, after a half-year of such depression, to recommend a dividend at the usual rate of 10 per cent., with a bonus of 1s. When they considered that they had a capital of 438,000*l*. at work, and that this half-year of great depression in trade, they were only 500*l*. worse off than they were last year, after declaring the same dividend, he thought their position was almost unparalleled in the commercial world. The directors believed that the coming half-year looked better than the previous one. As they were all aware, there was an agreement between the Cheltenham Company (formerly Shackleford, Ford, and Co.), which was intended to be of great benefit to both companies, but, on working it out, they found that it was not to the advantage of both companies, and before they met again he hoped they would be able to show to them that they had carried out such an agreement as would be beneficial to their company. The Chairman moved the adoption of the report. Mr. Ford seconded the motion, and after some discussion it was adopted. A dividend at the rate of 10 per cent., with a bonus of 1s. per share, was then declared, and the proceedings terminated with a vote of thanks to the Chairman.

The arrivals at Swansea include—the Celina, from Santander, with 150 tons of zinc ore, to order; Leontine, from Bilboa, with 150 tons of iron ore, for W. H. Thomas; Mary Jane, from Bilboa, with 210 tons of iron ore, for W. H. Thomas; Swallow, from Dieppe, with 80 tons of flint stones, to order; Amanda, from Girgenti, with 260 tons brimstone, for Elford, Williams, and Co.

TRADE OF THE SOUTH WALES PORTS.—The following are the returns of the quantity of coal shipped during the month of January, and the corresponding month of last year:—

EXPORTS.	Jan., 1869.	Jan., 1868.
Cardiff	Tons 177,021	Tons 162,361
Newport	25,249	32,356
Swansea	43,161	43,118
Llanelly	5,195	7,924
SHIPMENTS COASTWISE.	**Jan., 1869.**	**Jan., 1868.**
Cardiff	Tons 66,854	Tons 60,134
Newport	53,726	53,765
Swansea	18,297	16,458
Llanelly	5,974	8,915

Cardiff, also exported 9851 tons iron and 3439 tons patent fuel; Newport, 9777 tons iron; and Swansea, 2564 tons iron and 8040 tons patent fuel.

IMPROVED SCREW PROPULSION.

The London Association of Foremen Engineers monthly meeting, on Saturday, was very well attended, the chair being filled by Mr. Newton, of the Mint, President. Prior to the main business of the evening—that of paper reading—several new members were elected and proposed. Among the former was Mr. James M. Napier, of Lambeth, who contributed at the same time a donation of 20 guineas to the superannuation fund of the Institution.

The paper read on the occasion was entitled "The Epicycloidal Engine: an Effort towards Improved Screw Propulsion." It was the production of Mr. Laird, who had also prepared diagrams and models for this illustration. The author, after demonstrating the necessity of leaving sometimes the beaten track of our engineering predecessors, and exploring new fields wherein to exercise our own inventive and constructive skill, remarked upon the defects of the existing marine engines as used in screw propulsion. "The modern short-stroked horizontal screw engine," said Mr. Laird, "owes its shortcomings to the desire to pack the whole machine in the smallest possible compass. That engine, however, is the best which, with a given total length, has the longest connecting-rod. The disadvantages of the short connecting-rod may be comprehended as thus:—1st, Increased friction produced by the augmentated rubbing pressure of the guide pieces; 2d, a certain amount of increased friction on the joint-pin between the piston and connecting-rod; 3d, increased friction at the crank-shaft bearings due to the alternate lift and down pressure upon the shaft; 4th, and most important of all, perhaps, is the irregularity of motion induced by two violent pressures succeeding each other at short intervals, and the long pause intervening when the force is very small. In the epicycloidal engine two cylinders of rather unusual length are placed on either side, and parallel to the screw shaft. To the ends of the piston-rods guide-blocks or slippers are keyed, or otherwise secured. Two pins pass through the blocks, and these carry friction-rollers with V edges. The rollers work into epicycloidal grooves, cut on the circumference of a barrel, and thus communicate to the latter a rotatory motion. The barrel communicates motion to the screw-shaft and propeller. The object is to create on the face of the barrel such a curve as would give the action of the crank transmitted to the travel of the piston. In order to obtain this end the circumference of the barrel was divided into a given number of parts (say) 12, and half its length into 144, or the square of 12. Then, starting from the middle with 2 on the circumference, and drawing a line to 4 on the half length—from 3 to 9, 4 to 16, 5 to 25, and so on till reaching 12 to 144—a geometrical curve, such as that seen on the model [model exhibited] was obtained. The alternate action of the friction-rollers into the grooves give the required rotatory motion." The author of the paper entered further into the peculiarities of the construction of the engine, but, probably, its principle will be comprehended from the foregoing observations. In conclusion, Mr. Laird enumerated what he considered to be its principal advantages. They were as follow:—Economy of steam, more steady and equable motion, reduced strain on the bearings, and, consequently, less friction, and lastly, simplicity of mechanism. The merit of originating the idea of such an invention was due to Captain Ashe, R.N.

During the discussion which followed, Mr. Irvine remarked that he feared the rollers would wear very rapidly, and that he dreaded the evil of back lash.—Mr. Stabler defended the crank from the attacks made upon.—Mr. Ives imagined that the friction rollers might be more advantageously applied than as shown in the model.—Mr. Jansen considered the engine to be a modification of a similar contrivance invented by himself many years since.—Other members objected to some one or other of the arrangements.—Mr. Laird having replied, the Chairman, in putting the customary vote of thanks, remarked that it would be difficult for the author of the paper to have found a more practical or outspoken audience in the metropolis than he had met that night. He must not be discouraged, however, for it was the habit of foreman engineers to express their views on mechanical points with great freedom. Many inventors had had to run the gauntlet of criticism before their pet schemes had been received and adopted, and for himself (Mr. Newton said) he rather preferred that objections, conscientiously entertained, should be enunciated freely. They had all been instructed by the evening's proceedings, and Mr. Laird would probably think over the various theories, favourable and adverse, advanced during the sitting, and accept or dismiss them as might seem fit.

In closing the proceedings, the Chairman expressed a hope that all the ordinary members would be present at the anniversary festival on the 13th, and that their wives and families would grace the ladies' gallery with their presence on that occasion.

THE NEW SOUTH WALES COAL TRADE.—The colliery owners' combination, which has hitherto proved so prejudicial to the best interests of the colony, by causing a monopoly in coal, and thus preventing the profitable development of its enormous industrial resources, has happily ceased to exist. Like all combinations devised to retain a commercial commodity at a fixed price, regardless of variations in supply and demand, it has been found that the New South Wales coal monopoly has been as oppressive to the parties combined as to the consumer, and that wholesome competition is better calculated to promote the welfare of all concerned. For the breaking up of the combination the colony is indebted to the agent of the Scottish Australian Mining Company's collieries. The Australian Agricultural Company, in their directors' report, express regret at the termination of the agreement, and attribute thereto the less satisfactory account they have to give of the colliery, although it would appear to be more accurate to consider the resolution passed to undersell the seceding company, regardless of consequences, as the real cause of the diminished profit. The directors of the Australian Agricultural Company state that they had fully expected to show a larger profit than in any year since 1861, had the agreement been upheld; for during the first nine months of the year (this would include the winter months of June, July, and August) their sales of coal had largely increased, from 78,000 tons in 1867, to 93,000 tons in 1868, and the whole of the round coal had fetched 10s. per ton. The element of discord in the agreement was the question of sanctioning, controlling, or forbidding what are called "speculative shipments to colonial ports on colliery account," the objection to which was that it permitted an evasion of a fixed price. On May 28 the agent of the Lambton Company, who in the former case had seconded the resolution in favour

of allowing speculative shipments, brought the question forward with a view to forbid such transactions, but it was decided they were not against the agreement. The subject was again brought forward by him, at a meeting held on Aug. 19, which was adjourned till Aug. 29, and when the representatives of the other companies again asserted the legality of such shipments, he immediately gave notice of the withdrawal, as from that day, of his company from the agreement. It appears that circumstances had come to their knowledge, which were not explained to their satisfaction by the agent of the Lambton Company, and it was then resolved "That the Australian Agricultural, the Wallsend, the Miami, and the Co-operative Companies, should be at liberty to supply customers, on and after Aug. 31, at 3d. per ton below the price at which the Lambton Company offer to supply coal, it being understood that the underselling is to cease as soon as the price is reduced to 8s. per ton." It was also finally resolved that a communication be addressed to the Scottish Australian Mining Company in London, deprecating the course adopted by their agent in the colony, and drawing attention to the serious injury which must result to the coal mining interests from such proceedings. Henceforward it may be hoped that the several companies will act independently, and it will then be ascertained whether unrestricted competition is not more conducive to dividends than a uniform price of 10s. per ton, with the inconvenience of restrictions, which are inseparable from co-operative action, and it is hoped that the results obtained will enable all to derive an ample return from the capital employed in the coal trade of New South Wales.

SOCIETY OF ENGINEERS.—On Monday evening a paper will be read on "The Drainage and Water Supply of Fareham," by Mr. Thomas Buckham.

THE NORTH STAR GOLD MINING COMPANY (LIMITED).

Registered under the Companies Acts, 1862 and 1867, by which the liability of the shareholders is limited to the amount of their shares.

Capital £225,000, in 22,500 shares of £10 each,

Of which upwards of two-thirds, including the shares agreed to be taken by the vendors in part payment, have been applied for.
Shares will be allotted in the order of application.

Deposit £1 upon application, and £1 on allotment.

Further calls will be made as soon as an inspection of the mines has been made on behalf of the company.

Deposits to be returned in full in the event of no allotment.

Shareholders are to have the power of converting their shares, when fully paid-up, into transferable warrants.

DIRECTORS.

LEWIS R. PRICE, Esq., formerly of Mexico, and now of 115, St. George's-square, S.W.
JOHN S. NEALL, Esq., 7, Addiscombe-villas, Croydon, S.E.
WALTER SHAIRP, Esq., 25, Sussex-gardens, Hyde-park, W.
CHARLES LIDDELL, Esq., 24, Abingdon-street, Westminster, S.W.
GEORGE T. COULTER, Esq., San Francisco, California, U.S.
With power to add to their number.

BANKERS—Messrs. GLYN, MILLS, CURRIE, AND CO.

BROKERS.

Messrs. J. HUTCHINSON AND SON, 15, Angel-court, Throgmorton-street, E.C.

SOLICITORS.

Messrs. UPTONS, JOHNSON, AND UPTON, 20, Austinfriars, E.C.

SECRETARY—ELIAS TUCKER, Esq.

TEMPORARY OFFICE.

15, ANGEL COURT, THROGMORTON, STREET, E.C.

PROSPECTUS.

This company is formed for the purchase and working of the mines known as the North Star Gold Mines, situated in Grass Valley, Nevada County, California, about 60 miles from Sacramento, the capital of California, and 12 miles from the Central Pacific Railroad.

The following statement as to these mines is by Mr. George T. Coulter, of California, at present residing in London, who is one of the directors of the company and a part owner of the mines.

These mines are now, and have been for some years, in full and successful operation.

The property is freehold and exempt from all royalties.

The actual results of the workings up to date, show that the mines have, since their commencement provided the capital requisite for their own development, including an outlay of about £40,000 for machinery, plant, &c., and returned a clear net profit of more than £125,000 to their proprietors.

Since the first opening of these mines the gross returns of gold have yielded an amount of about £300,000, derived from the crushing and amalgamating of some 50,000 tons quartz.

The average yield of the quartz has been found to be from 1½ to 1¾ ozs. gold per ton quartz, representing in value from £6 to £7; whilst, on the other hand, the total expenses of mining and extraction do not exceed £3 2s. 6d. per ton.

During the year 1868, from the 1st January up to the 10th July (working with 16 stamp heads), the amount of gold extracted and sold produced £23,264 5s., or an average return of £3674 per month. At the end of July, however, the number of stamps had been increased to 24, and the present yield per month is, according to latest advices, above £8000.

The mine has been opened out to a depth of 900 feet from the surface by shafts and levels on the course of the lode, which has improved in strength and richness in depth. The amount of stoping ground actually proved and available for immediate extraction is considered sufficient to supply 36 heads of stamps for the next 10 years, which, taking the quartz at a value of only £6 per ton, should yield a net annual profit of £60,000 per annum. This estimate does not include the returns derivable from the large extent of virgin ground at the other parts of the lodes as yet untouched, amongst which are the recent important discoveries on the Rush and Layton Ledge; nor from the development of the mine below its present depth (900 feet), for which provision has already been made by the recent erection of powerful machinery, amply sufficient for working the mine to a depth of 2000 feet below the surface, if required.

The acquirement of this valuable property, consisting of mines and mineral rights, arable and forest land, erections, steam-engines, pumping, winding, stamping, dressing, and amalgamating machinery, buildings, offices, plant, stores, &c., all in efficient working order, and without any reservation of rights or royalties whatsoever, may be arranged for at the sum of $1,000,000, of which the present proprietors will accept $250,000, or their equivalent in English money, in fully paid up shares of the company.

The vendors will not require the purchase money to be paid before the legal advisers of the company in California have certified that the property has been duly transferred to the company, and until every facility shall have been offered for testing the correctness of this account of the mines in all essential particulars, both as to present workings and future prospects.

This property is capable of being developed on a much larger scale than at present, and the yield of gold might at once be much increased by the erection of additional stamp heads, which could be done at a comparatively trifling outlay. The transfer of the mines to the company need not occasion any stoppage of the works, and the usual monthly returns of gold will be received from the mines as heretofore, from the moment they come into the possession of the company.

The mines have been carefully inspected and reported upon by Prof. Silliman, who is considered as the highest authority upon these subjects in the United States; other reports and opinions have been given by Mr. Beckwith, Mr. Stangroom, Mr. Cronise, and Mr. J. A. Phillips and Mr. John Petherick, of London, which all concur in representing this mining property as one of great value and capabilities.

The Memorandum and Articles of Association, and the above statement of Mr. Coulter; a report by the well-known engineer, Mr. David Forbes, F.R.S., &c., confirmatory of such statement, and of the reports therein referred to; a supplemental report by Mr. David Forbes, embracing private intelligence to himself in reference to the mines; the report by Mr. John Petherick, F.G.S., &c.; the bullion returns from the mines up to the close of the year 1868; together with surveys and plans of the mines, and other documents, and a large number of samples of the ores, may be seen at the office of the company.

FORM OF APPLICATION FOR SHARES.

To the directors of the NORTH STAR GOLD MINING COMPANY (Limited).

GENTLEMEN,—Having paid £ to your bankers, I request that you will allot me shares in the North Star Gold Mining Company (Limited), and I hereby agree to accept such shares, or any less number that may be allotted to me, and to pay the calls thereon, subject to the provisions of the Companies Acts, 1862 and 1867, and of the Articles of Association.

Name in full .....
Address.....
Occupation, if any .....
Date..... Usual signature .....

The above form, when filled up, is to be left with the bankers on payment of the deposit.

ESTABLISHED MORE THAN HALF A CENTURY.

THE TAVISTOCK FOUNDRY, IRONWORKS AND HAMMER MILLS,

which have been carried on for more than half a century by MESSRS. GILL AND CO., and obtained a

HIGH REPUTATION FOR

SHOVELS AND OTHER TOOLS

as well as for

ENGINEERING AND FOUNDRY WORK,

have been purchased by

MESSRS. NICHOLLS, MATHEWS, AND CO.,

BEDFORD IRONWORKS, TAVISTOCK.

For thirty years Messrs. NICHOLLS, MATHEWS, and Co., have been the proprietors of the latter works, but are now about to remove to the

TAVISTOCK FOUNDRY,

where, having the advantage of a never-failing stream of water of upwards of 200-horse power, they will have increased facilities for speedily and satisfactorily executing all orders entrusted to them.

Address,—

MESSRS. NICHOLLS, MATHEWS, AND CO
TAVISTOCK FOUNDRY, TAVISTOCK.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Devon.

IN the MATTER of the COMPANIES ACT, 1862, and of the EAST BROOKWOOD MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 4th day of February instant, presented to the Vice-Warden of the Stannaries by John Bayly, a creditor of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the sittings of the Court holden at the Prince's Hall, Truro, within the Stannaries of Cornwall, on Thursday, the 18th day of February inst., at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitor, or agent, within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 16th day of February instant, and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

SAMUEL CATER, Plymouth, Devon
(Solicitor of the petitioner).
F. HEARLE COCK, Truro, Cornwall
Dated Truro, February 8th, 1869. (Agent of the said solicitor).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the WHEAL PAR MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 5th day of February inst., presented to the Vice-Warden of the Stannaries by William Harry Jenkins, a shareholder in the said company, and also the purser, and that the said petition is directed to be heard before the Vice-Warden at the sittings of the Court, holden at the Prince's Hall, Truro, on Thursday, the 18th day of February instant, at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, or his solicitor, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., the secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition, and affidavits verifying the same, from the petitioner or his solicitors, within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 16th day of February instant, and notice thereof must at the same time be given to the petitioner, or his solicitors.

CARLYON AND PAULL, Truro
Dated the 8th day of February, 1869. (Solicitors for the petitioner).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and in the MATTER of the TREVESA AND BREA TIN AND COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 5th day of February instant, presented to the Vice-Warden of the Stannaries by John Dyson, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the sittings of the Court, holden at the Prince's Hall, Truro, within the Stannaries of Cornwall, on Saturday, the 20th day of February instant, at Nine o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitor, or agent within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 18th day of February instant, and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

GEORGE YEWDALL, Leeds
(Solicitor for the petitioner).
F. HEARLE COCK, Truro, Cornwall
Dated Truro, 10th February, 1869. (Agent of the said solicitor).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and in the MATTER of the BREA CONSOLIDATED TIN AND COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 5th day of February instant, presented to the Vice-Warden of the Stannaries by John Dyson, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the sittings of the Court, holden at the Prince's Hall, Truro, within the Stannaries of Cornwall, on Saturday, the 20th day of February instant, at Nine o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit, verifying the same from the petitioner, his solicitor, or agent within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 18th day of February instant, and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

GEORGE YEWDALL, Leeds
(Solicitor for the petitioner).
F. HEARLE COCK, Truro, Cornwall
Dated Truro, 10th February, 1869. (Agent of the said solicitor).

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the BOTELET MINING COMPANY.—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 10th day of February instant, presented to the Vice-Warden of the Stannaries by Richard Clogg, of Liskeard, in the county of Cornwall, the late purser, and also a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, in the County of Cornwall, on Wednesday, the 24th day of February instant, at Eleven o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitor, or agent, within twenty-four hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before Saturday, the 20th day of February instant, and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

HENRY CAUNTER, of Liskeard
(Solicitor for the petitioner).
JOHN GILBERT CHILCOTT, of Truro
(Agent for the said solicitor).
Dated Truro, the 11th day of February, 1869.

CORNAL SLATE QUARRY, CARNARVONSHIRE,

About THREE MILES from TREFRIW QUAY.

AN ARRANGEMENT may be ENTERED INTO for the above QUARRY, and the following articles SOLD on February 26th, 1869:—

About 37,000 SLATES, average sizes from 24×14 to 14×7; 120 yards tram road; 2 strong wagons; smithy tools; 2 ropes; 6 ladders; travellers, chisels, hammers, &c., the property of the late Mr. G. H. Jones, Hand Inn, Llanrwst.

For further particulars, apply to HUGH DAVIES, Quarryman, Scotland-street, Llanrwst; or the auctioneer, R. D. ROBERTS, Denbigh-street, Llanrwst.

MINING PLANT FOR SALE.

TO BE SOLD, BY PRIVATE CONTRACT, the whole or portions of the valuable PLANT and MACHINERY in and upon the

PENPOMPREN & PENYBANK UNITED SILVER-LEAD MINES,

TALYBONT, near ABERYSTWITH, CARDIGANSHIRE,

Comprising TWO WATER-WHEELS, nearly new (with iron segments), 40 feet diameter by 4 feet breast, and 12 feet diameter by 4½ feet breast respectively; upwards of 750 feet of LAUNDERS to ditto; CRUSHER, with 30 inch diameter rollers; double reversing improved WINDING MACHINE; 600 to 700 fathoms of WIRE ROPE, with pulleys and sheaves to support ditto; 11 fathoms 9 inch PUMPS, 15 fathoms 6 inch ditto, 20 fathoms 5 inch ditto; 90 to 100 fathoms of iron PUMP RODS; electrical signalling apparatus, with 1500 yards of conducting wires; 400 to 500 yards of double-iron bridge tram RAILS; patent atmospheric American ORE STAMPS, with speed gearing for ditto; one ZENNER'S rotating BUDDLE, 18 feet diameter; two circular BUDDLES, with 9 ft. wheel to drive ditto; one OFFICE (of wood) 12 by 10 feet square; one ore bin, scales and weights, wooden sheds; six JIGGING HUTCHES; flat buddle, trunks, strakes, dolly tubs, catch pits, sieves, barrows, tools and utensils on dressing-floors, kibbles, tram wagons, balance and pendulum bobs, angle pulleys, crab winch, lifting screw, chains, tackle ropes, sundry lots of timber and ironwork, ladders and dividing boards in shafts, one horse and cart and two sets of harness, patent straw cutter and stable utensils, assayer's furnace and apparatus.

Together with all the other sundry MATERIALS and APPLIANCES necessary to the working of an extensive LEAD MINE, the whole plant being in good order, of recent construction, and of the most modern and approved workmanship.

Apply to Mr. EDWARD GLEDHILL, manager, at the mines, who will furnish all requisite information and particulars.

In Chancery.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867,
AND
IN THE MATTER OF SAMUEL BASTOW AND COMPANY (LIMITED).

THE CARLTON IRON WORKS,

NEAR STOCKTON-ON-TEES,

TO BE SOLD, BY PRIVATE CONTRACT, AS A WHOLE.

THE OFFICIAL LIQUIDATOR OF SAMUEL BASTOW AND COMPANY (LIMITED) INVITES TENDERS for the PURCHASE of the above WELL-KNOWN and EXTENSIVE WORKS, which are situated most advantageously for working the famous ironstone of the Cleveland district. The North-Eastern Railway Company's line cuts through the property, and a siding runs up to the furnaces; there are two furnaces of the most approved form and in splendid condition. The blast-engine is almost new, the steam cylinder is 36 in. in diameter, length of stroke 78 inches, and the diameter of the blast cylinder is 96 inches. The property otherwise comprises the valuable FREEHOLD and the WHOLE of the FIXED PLANT, including boilers, blast mains, winding engine, machinery for pumping, timber "gauntry" and charging lift, two splendid weigh-bridges, by Hodgson and Stead, of Manchester; workshops, offices, and stores in convenient brick buildings; three substantially built cottages for workmen, and one handsome dwelling-house, suitable for the manager of the works containing drawing and dining rooms, four bedrooms, bath-room, and kitchens.

Also a brickfield, with most modern and approved brick-making machinery erected, and steam-engines for driving same; mains for supplying the works with water, and engines for pumping from the river bounding the freehold.

The whole forming, either for a private speculation or a public company, a most advantageous opportunity for the investment of capital.

Inventories may be seen and full particulars obtained on application to the official liquidator, EDWARD ADDIS, Esq. (Addis and Harris), 25, Old Jewry, London; Messrs. MEYRICK, GEDGE, and Co., solicitors, 1, Old Palace-yard, Westminster, London; and on the premises, as above.

In Chancery.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867,
AND
IN THE MATTER OF SAMUEL BASTOW AND COMPANY (LIMITED).

THE CLIFF HOUSE IRON WORKS,

WEST HARTLEPOOL, DURHAM,

TO BE SOLD, BY PRIVATE CONTRACT, AS A WHOLE.

THE OFFICIAL LIQUIDATOR OF SAMUEL BASTOW AND COMPANY (LIMITED) INVITES TENDERS for the PURCHASE of the above WELL-KNOWN and EXTENSIVE WORKS, which are replete with every requisite for carrying on an extensive engineering business.

The works are conveniently situated for land and water carriage, and have a siding running into the works from the North-Eastern Railway. The buildings are of recent erection, are substantially built, and the machine shops are very completely fitted with most costly and modern machine tools, all in first-class working order, and fixed ready for work, in conjunction with a powerful steam-engine for driving the same.

The property comprises about two acres of freehold land, and the buildings and the plant upon it. The main building is of brick, and is lofty, and well lighted, with a slated roof. This is 300 ft. long by 60 ft. wide, and is divided into fitting and erecting shops, pattern makers' loft, engine house, blacksmith's shop and foundry, with two cupolas; a spacious forge, built of brick, with plate furnaces and steam hammers, trimming shed, stabling for five horses, hay shed, pattern sheds, and a handsome brick structure, containing large offices for every department, and also stores for all paints, &c.

A railway is laid in the yard for removing heavy castings and boiler work from one part of the premises to another, and the whole is enclosed by a brick wall some 18 ft. in height.

Inventories may be seen and full particulars obtained on application to the official liquidator, EDWARD ADDIS, Esq. (Addis and Harris), 25, Old Jewry, London; Messrs. MEYRICK, GEDGE, and Co., solicitors, 1 Old Palace-yard, Westminster, London; and on the premises, as above.

BRENKBURNE IRON AND COAL COMPANY (LIMITED).

IN LIQUIDATION.

THE LIQUIDATOR is prepared to RECEIVE, at the company's offices, Dawley, Wellington, Salop, TENDERS for the PURCHASE of the PLANT, LEASE, and GOODWILL of the above company.

The property may be viewed on application at the works, near Morpeth.

VALUABLE IRON WORKS FOR SALE.

MR. JOHN PARSONS has been favoured with instructions TO SELL, BY AUCTION, at the Royal Hotel, Cardiff, on Tuesday, the 9th day of March, 1869, at Twelve for One o'clock, in One Lot, or such lots as may be fixed at the time of sale, the VALUABLE IRON WORKS, ROLLING MILLS, &c., known as the

COLLEGE IRON WORKS,

Near CARDIFF, for some years carried on for the MANUFACTURE of SMALL RAILS AND MERCHANTS' BARS, and capable of being used for the MANUFACTURE of TIN BARS, for which there is at present a great and profitable demand in the immediate locality.

These iron works are situate three miles from Cardiff, stand on three acres of ground, and are most advantageously situated on the Glamorganshire Canal, thus communicating direct with Cardiff Docks, Aberdare, and Merthyr, and by which coals can be delivered at about 6s. 9d. per ton. Llandaff Station is within three quarters of a mile, whilst Walnut Tree Bridge Junction of the Rhymney and Taff Vale Railway is within three miles, thus having direct communication with both the broad and narrow gauge railway systems.

The PLANT and MACHINERY include PUDDLING and HEATING FURNACES, ROLLING MILLS, &c., with the usual appliances. A foreman's house, two cottages, and office are all included.

The tenure is leasehold, the chief portion being held for an unexpired term of 64 years, at a rental of £40, and the remainder for 32 years, at a rental of £12.

The works are in full working order, and may be viewed, and other particulars obtained, on application to Mr. E. DANIEL, Whitchurch, near the works; Mr. JOHN PRICE, Solicitor, 28, Clare-street, Bristol; or of the Auctioneer, Athenæum-chambers, Nicholas-street, Bristol.

VERY VALUABLE LEASEHOLD COLLIERIES, ABERDARE, GLAMORGANSHIRE.

MESSRS. FULLER, HORSEY, SON, AND CO. are instructed to SELL, BY AUCTION, at the Mart, Tokenhouse-yard, London, E.C., on Wednesday, March 24, at Two o'clock precisely, the very valuable LEASEHOLD COLLIERIES and other MINERAL PROPERTIES of the

ABERDARE MERTHYR STEAM COAL COMPANY

(LIMITED),

Situated at HIRWAIN COMMON, in the parish of ABERDARE, GLAMORGANSHIRE, about two and a half miles from the town of Aberdare, and in direct railway communication with the shipping ports of Swansea, Cardiff, and Newport.

The property comprises numerous SEAMS or VEINS of COAL of the thickness in the aggregate, of 32 ft. 7 in., together with IRONSTONE and FIRE-CLAY, extending under a tract of land of about 624 acres; and there are underlying the entire area NINE VEINS or SEAMS of COAL, known as the Driver Vein, the Upper Four Feet, the Six Feet, the Pit or Yard Vein, the Nine Feet, the Dirty Vein, the Little Vein, the Old Vein, and the Gellideg. The five first named have been worked in these collieries, and the remainder are known to exist, as the last named is worked at Cyfartha. The minerals include the well known "Upper Four Feet," being the celebrated seam of the Aberdare Steam Coal, and the other seams are well known and approved, and are won by levels or drifts, one of which cuts most of the seams; the other works the "Driver Vein" and Upper Four Feet; the roofs are good, the workings free from gas, and a drift has been formed from east to west along the entire range, which effectually drains all workings to a certain level without pumping.

The workings are equal to an out put of from 400 to 500 tons of coal daily, but the quantity at present raised does not exceed 300 tons daily, in consequence of the existing dulness of trade. The ironstone is won with the coal, and at the present rate of working 150 tons per month are raised. The quality is good, equal to from 33 to 35 per cent.

The collieries have been opened under careful supervision, and the whole of the plant and appliances are of the best order. The new drift is worked by two powerful horizontal steam-engines, with steel wire-ropes and winding gear, the trams are conveyed on a trolly or wagon down a new self-acting incline, having two lines of permanent rails, about 680 yards long, from the mouth of the pit to the sidings of the railway

The long range level is worked in a similar way.

The coals are passed through self-registering screens, of the most approved modern construction, into the railway trucks. The cost of the coals, including royalties and all mining charges, does not average more than 5s. 4d. per ton.

The buildings include steam-engine house, range of stone-built stables for 40 horses, saddlers' shop, hay and chaff store, offices for manager and clerks, carpenters' shop, two smiths' shops, small brick lodge, sheds over incline, drums and coal screens, weigh house, wheelwrights' shop, store room, ventilating shaft and furnace. There are two reservoirs on the side of the mountain, fed by natural springs, that afford a plentiful supply of good water for the purposes of the colliery.

The present company have expended upwards of £50,000 in the purchase and development of this property. The whole of the seams are now being worked at adjoining collieries, and have been thoroughly proved, and their character and value ascertained, by the present manager, who has also, from a recent survey, ascertained the exact quantity of unworked coal; indeed, the colliery may not inaptly be termed, as to most of the seams, a maiden colliery; and as the coal can be cheaply won, with ordinary management, a most remunerative purchase may be made by those seeking investment. Held under leases, which may be seen at the offices of the solicitors.

The works may be inspected on application to Mr. THOMAS DAVIES, the manager, at the works. Particulars, with plans and other information, may be obtained of Messrs. MINET and SMITH, Solicitors, 3, New Broad-street, London, E.C.; and of Messrs. FULLER, HORSEY, SON, and Co., Auctioneers, 11, Billiter-square, E.C.

Particulars and plans may also be had at the principal hotels at Cardiff, Newport, Swansea, Liverpool, and Manchester; and at the Auction Mart, London.

FOR SALE, cheap, a 16-horse power PORTABLE STEAM ENGINE, new, and with all recent improvements, guaranteed.

FIRST-CLASS PORTABLES, 5 to 25-horse power, on advantageous terms. Prize Medals awarded—Hamburg, 1863; Paris, 1867, &c.

FOR SALE, EIGHT very superior SECONDHAND PORTABLE STEAM ENGINES, 5 to 10-horse power, by eminent makers, in excellent condition.

BARROWS AND STEWART, ENGINEERS, BANBURY.

RAILWAY WAGON WORKS, BARNSLEY.

MESSRS. G. W. AND T. CRAIK
ARE PREPAR TO
SUPPLY COAL AND COKE WAGONS
OF EVERY DESCRIPTION,
Either for cash, or by deferred payments through wagon-leasing companies.

WAGONS PROMPTLY REPAIRED.

TANK LOCOMOTIVES,

FOR SALE OR HIRE.
HENRY HUGHES AND CO.,
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THE BEVERLEY IRON AND WAGON COMPANY

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MANUFACTURERS OF RAILWAY WAGONS, WHEELS
AXLES, LORRYS, CARTS, WOOD WHEELS, &c.,
IRONWORKS, BEVERLEY, YORKSHIRE.

FOR SALE.

LOCOMOTIVE, PUMPING, AND WINDING ENGINES

By leading builders, and at greatly reduced prices;
BOILERS, CASTINGS, WAGONS (on sale or hire);
RAILS, CHAIRS, POINTS and CROSSINGS, SLEEPERS, WIRE and HEMP ROPES, and every description of RAILWAY and MINING PLANT (new and secondhand).
Particulars and quotations on application to—
T. E. MINSHALL,
QUEEN STREET CHAMBERS, WREXHAM.

COLLINGE'S PATENT SPONGE CLOTHS,

FOR CLEANING STEAM ENGINES, EVERY DESCRIPTION OF MACHINERY, LAMPS, WINDOWS, &c., &c.
Being a woven fabric, they are easily washed, say 20 times, consequently do not cost one-fourth the price of cleaning waste.
TRADE ALLOWANCE MADE TO DEALERS, FACTORS, AND AGENTS.
Samples and prices upon application to—
DANIEL COLLINGE AND SON,
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UPWARDS of 6000 LARCH, 4000 OAK POLES, 100 OAK and OAK PLANKS upwards of 20 feet long; ELM COAL-PIT RINGS, ready cut, in stock.
All kinds of ENGLISH TIMBER supplied in the round, and OAK and LARCH SCANTLING cut to sizes for railway and coal-wagon building.
Dealer in all kinds of BRITISH TIMBER.
MILLWRIGHTS, ENGINEERS, COACH BUILDERS, WHEELWRIGHTS, &c., supplied on the most reasonable terms.
JAMES ATKINSON,
No. 63, GRANBY ROW, MANCHESTER.

WILLIAM HANN AND SON beg to offer to SUPPLY COLLIERY OWNERS, and the public generally, with their
PATENT SAFETY LAMPS,
Which have been proved INEXPLOSIVE in the highest obtainable current of gas, of 48 ft. per second. No. 1 weighs 24 ozs., is simple in its construction, burns with a steady and nearly uniform flame in moderate currents, gives a good light, and is in every respect a practicable lamp. Price, 9s. each; if in quantities of a dozen or upwards, 8s. 6d. each, delivered free. Orders received by—
WILLIAM HANN AND SON,
HETTON COLLIERY, FENCE HOUSES.

HESLOP AND WILSON,

IRON, METAL, AND GENERAL MERCHANTS, AND ENGINEERS,
40, DEAN STREET, NEWCASTLE-ON-TYNE.
EVERY DESCRIPTION of MACHINERY, ENGINEERS' TOOLS, &c. Portable and stationary ENGINES, MILLS, PUMPS, TURBINES, PATENT FANS, AGRICULTURAL MACHINERY, and IMPLEMENTS, STEEL TYRES, RAILS, &c.
COLLIERY STORES—Ropes, Spun Yarn, Waste, Leather, Shovels, Picks, Nails, Chain, Bar-iron and Plates, &c. Solid Cast-steel Sinkers' Hammers and Picks. Brass and Iron Tubes, Nuts, Bolts, Rivets, &c.
ESTIMATES, DESIGNS, TRACINGS.
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THE NORTH SOMERSETSHIRE COAL FIELD.—

BY SEWARD W. BRICE, B.A.
OPINIONS OF THE PRESS.—"A work of great practical value to all interested in the development of a great South England Coal Field."—*Mining Journal.*
"The task of estimating the quantity of coal still remaining in the North Somersetshire Coal Field is very difficult. Here we have a very troubled field of geological enquiry, and of great perplexity and expense to the coal miner. Mr. Brice understands his subject, and his style of writing is clear and interesting."—*Colliery Guardian.*
London: BEMROSE and LOTHIAN, 21, Paternoster-row; or post free from the *Gazette* Office, Tiverton.

HOGG'S GUIDE TO THE IRON TRADES.—

Fourth edition, eighth thousand, price 10s.
This popular Treatise, revised and improved, contains a series of tables on weight and measurement of metals, stone, and timber; gross and net sectional areas of angle-irons; strength of materials; Government chain and anchor tests; tests of iron and steel from different makers; boiler making, forging, iron rolling, cog-wheel pattern making, moulding, &c. Also articles on girder making, pile driving, and all matters connected with practical engineering and smiths' work, verified in most cases by the actual experience of the author.
Orders to be sent to JOSEPH HOGG, Sandwell Road, West Bromwich, Staffordshire.

NOTICE TO INVESTORS.

STATISTICS OF THE MINES OF CORNWALL AND DEVON

WITH OBSERVATIONS UPON THEM.
I beg to inform the public that my work, under the above title, for 1869, will be published early in January, and will contain the following particulars, viz.:—The geological position, present prospects, names of purser, manager, and secretary, with statement of the annual returns of each mine during the last ten years, and of dividends paid to the present time.
This work will show with completeness and explicitness a variety of particulars not afforded in any other publication, but which it is important, especially for investors, to know—such as depth of mine, hands employed, returns, length of time at work, &c.
Only a limited number of copies will be issued. THOMAS SPARGO.
Subscribers' names will be received at my office, 224 and 225, Gresham House, Old Broad-street, London, E.C., and at the office of the MINING JOURNAL.

Now in the Press.

A MINING ATLAS, DESIGNED TO CONVEY COMPLETE

INFORMATION CONCERNING THE CHIEF MINING DISTRICTS IN GREAT BRITAIN AND THE UNITED STATES OF AMERICA.
BY THOMAS SPARGO,
GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.
The work contains surface plans showing the geological formation of tht various districts, and longitudinal and transverse sections of some of the most important mines in the United Kingdom, with observation upon their position, character, and working. Geological and parish maps of Cornwall, Devon, Cardiganshire, and the Isle of Man, showing height of hills, &c., have been prepared with the greatest care. Maps intended to illustrate the progress of mining in North America have been executed with great fulness and punctilious exactitude. A map of the United States and territories shows the divisions of each, with the mining districts of Nevada, Colorado, Idaho, New Mexico, Wisconsin, and the line of railways connecting the Atlantic and Pacific. Mr. Whitney, Commissioner for the Union to the Paris Exhibition, prepared a map of the great mining region of Colorado for the occasion, and has presented the plates to the author, for this work. A surface map of California shows the position of the mines in that great mining region.
The work will embrace explanatory notes, definitions, and illustrations of mining terms—such as shaft, level, cross-cut, sink, stope, end, rise, pitch, &c.
The work will contain upwards of fifty maps, plans, and sections.
Price, 10s.; by post, 10s. 6d.

COMPENSATION IN CASE OF INJURY,

AND A FIXED SUM IN CASE OF DEATH,
CAUSED BY ACCIDENT OF ANY KIND,
May be secured by a policy in the
RAILWAY PASSENGERS' ASSURANCE COMPANY.
An annual payment of £3 to £6 5s. insures £100 at death, and an allowance at the rate of £6 per week for injury.
RAILWAY ACCIDENTS ALONE
May be provided against by insurance tickets for single or double journies. For particulars, apply to the Clerks at the Railway Stations, to the Local Agents, or at the
OFFICES,—64, CORNHILL, and 10, REGENT STREET, LONDON.
WILLIAM J. VIAN, Sec.

NICHOLLS, MATHEWS, AND CO., ENGINEERS,

TAVISTOCK FOUNDRY, TAVISTOCK.
MANUFACTURERS of STEAM ENGINES of EVERY DESCRIPTION, made on the BEST and NEWEST PRINCIPLES. We beg more especially to call the attention of the public to the MANUFACTURE of our BOILERS, which have been tested by most of our leading engineers. PUMP WORK CASTINGS of EVERY DESCRIPTION, both of brass and iron. HAMMERED IRON and HEAVY SHAFTS of ANY SIZE. CHAINS made of the best iron, and warranted. MINERS' TOOLS and RAILWAY WORK of EVERY DESCRIPTION. ALL ORDERS FOR ABROAD RECEIVE their BEST ATTENTION. NICHOLLS, MATHEWS, and Co. have had 20 years' experience in supplying machinery to foreign mines, and selecting experienced workmen to erect the same, where required.
Messrs. NICHOLLS, MATHEWS, and Co. have always a LARGE STOCK of SECOND-HAND MINE MATERIALS in stock, and at moderate prices.

WILLIAMS'S PERRAN FOUNDRY COMPANY,

PERRANARWORTHAL, CORNWALL.
MANUFACTURERS of STEAM PUMPING and EVERY OTHER KIND of ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS of every description, of the very best quality. Estimates given for the supply of any amount of machinery.
London Agent.—Mr. EDWARD COOKE, 76, Old Broad-street, London, E.C.

STAFFORDSHIRE WHEEL AND AXLE COMPANY

(LIMITED),
MANUFACTURERS of RAILWAY CARRIAGE, WAGON, and CONTRACTORS' WHEELS and AXLES, and other IRONWORK used in the CONSTRUCTION of RAILWAY ROLLING STOCK.
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HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.
LONDON OFFICE,—118, CANNON STREET, E.C.

RAILWAY CARRIAGE COMPANY (LIMITED.

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MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a period of years.
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CHIEF OFFICES,—OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES,—6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED)

MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
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WAGON WORKS,—SMETHWICK, BIRMINGHAM.
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London Agent—Mr. E. B. SAVILE, 67, Victoria-street, Westminster, S.W.

IN THE TOWER FOUNDRY IS THE TYNE DEPOT FOR

MACHINERY of every description for WOOD and IRONSTONE, CORN-CRUSHING, and PUG MILLS. Also, AGRICULTURAL IMPLEMENTS.
PROPRIETOR,—G. HARLE, JUN.,
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PURCHASERS of PORTABLE ENGINES and STEAM CRANES will do well to ask G. HARLE'S price for the same.

STEAM ENGINES & ECONOMY OF FUEL.

B. DONKIN & CO.

Are now making their PATENT HORIZONTAL STEAM ENGINES, by which great ECONOMY OF FUEL is attained, the price being at the same time very moderate for this class of engine.
These engines have been accurately tested as to consumption of fuel, and have been sufficiently long at work to prove their durability and efficiency.
Employers of steam power can have their engines easily tested by a simple and inexpensive apparatus, by which the comparative consumption of steam is ascertained, irrespective of the difficult questions of evaporative power of boilers and quality of fuel.
Apply to—
B. DONKIN & CO., ENGINEERS' WORKS,
BERMONDSEY, LONDON, S.E.

F. N. GISBORNE'S PATENT MECHANICAL BALANCE-WEIGHT SIGNALS FOR MINES, &c.

THESE SIGNALS supply a want long felt in giving INSTANT COMMUNICATION in MINES at SEVERAL PLACES at the SAME TIME without the aid of electricity, but by a single rod or chain; so that a degree of safety is ensured hitherto unknown.
The price is also very low, and the mechanism so simple that any ordinary mechanic could put it in order if out of adjustment.
The same patent, as applied to ships, has received the approval of the Chief Engineer, Chatham Dockyard (vide *Times*, Aug. 13, 1868).
SOLE AGENT FOR MINERS:
MR. GEORGE B. JERRAM, ENGINEER, WASHINGTON BUILDINGS, BRUNSWICK STREET, LIVERPOOL.
N.B.—Mr. JERRAM is now visiting the different mines with working models.

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ROSIN DISTILLERS, GREASE AND VARNISH MANUFACTURERS,
HOLT TOWN OIL WORKS, MANCHESTER,
MANUFACTURERS OF VEGETABLE OILS, &c.
ANTI-FRICTION GREASE, 10s. to 14s. per cwt.
Wire rope ditto, free from acid, 15s. per cwt. Liquid ditto (between thick and thin), for trams, &c., 8s. to 12s. per cwt.
SKIP, HUTCH, CORVE, and WAGON OILS, from 8s. to 12s. per cwt.
TORCH OIL, 1s. to 1s. 6d. per gallon.
COPPER-SPOUTED QUART LAMPS, 4s.; TORCH WICK for ditto, 6d. per lb.
PATENT ANTI-CORROSIVE BLACK VARNISH,
"Paint Substitute for Wood or Iron," ready for use, 1s. to 2s. 6d. per gallon.
We shall be glad to furnish a detailed price-list on application.
Orders by post receive prompt attention.

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CHESTS, DOORS, AND STRONG ROOMS,
With the progressive and recent improvements effected after half a century's experience, effectually guard against FIRE and BURGLARS.
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RAILS FOR SIDINGS, &c.,

Of DOUBLE-HEAD, FLANGE, and BRIDGE SECTIONS,
CHAIRS, FISH-PLATES, AND POINTS AND CROSSINGS,
COLLIERY RAILS for underground and tramways,
In stock, for prompt delivery, by
ROBERT WRIGHTSON, IRON MERCHANT,
NEWPORT, MONMOUTHSHIRE.

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JOHN DAVIS,
MANUFACTURER OF MINING AND SURVEYING INSTRUMENTS,
DERBY.
MAKER (by appointment) of HEDLEY'S DIALS.
Price List on application.
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Price £8 10s. per set of four.

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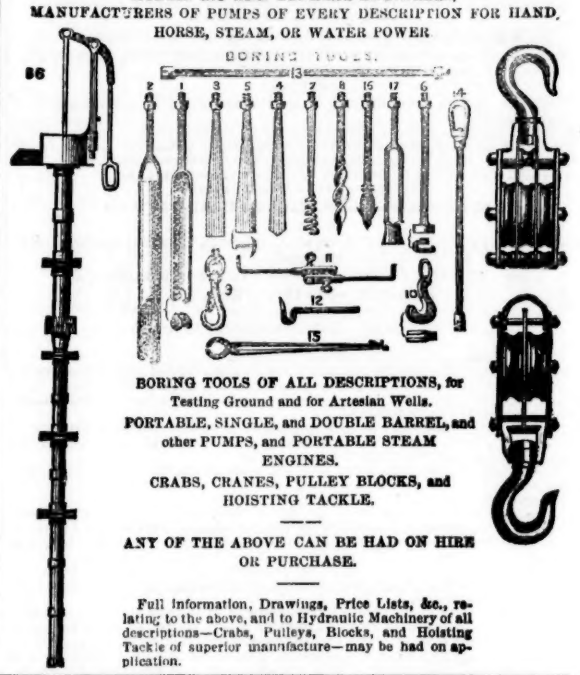

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PATENT FLAT AND ROUND HEMP ROPES.
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULING, OIL SHEETS, BRATTICE CLOTHS, &c.
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AND BRATTICE CLOTH FOR MINES
MANUFACTURED BY
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WEST GORTON WORKS, MANCHESTER.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c, Cheshire*	10 0 0	—		10 6 8	0 5 0	Jan. 1869
200	Botallack, t, c, St. Just	91 5 0	—	150 160	491 5 0	2 10 0	Jan. 1868
4000	Brookwood, c, Buckfastleigh	1 11 0	—		0 12 6	0 2 6	Aug. 1868
1000	Bronfloyd, l, Cardigan*	12 0 0	—		10 17 0	0 10 0	Jan. 1869
5094	Bwlch Consols, s-l, Cardigan	4 0 0	—		0 5 0	0 5 0	June 1868
6400	Cashwell, l, Cumberland*	2 10 0	—		0 3 0	0 1 6	Aug. 1868
916	Cargoll, s-l, Newlyn	15 5 7	—		15 15 0	0 10 0	Jan. 1869
1280	Chanticleer, l,	0 7 8	—		0 1 0	0 0 6	Nov. 1868
2450	Cook's Kitchen, c, Illogan‡	19 14 9	13½	12½ 13½	1 17 0	0 5 0	Jan. 1869
509	Creegbrawse and Penkevil, t	—	—		2 5 0	1 5 0	April 1868
867	Cwm Erfin, l, Cardiganshire*	7 10 0	—		29 13 0	0 10 0	Jan. 1869
128	Cwmystwith, l, Cardiganshire	60 0 0	—		383 10 0	2 0 0	Aug. 1868
280	Derwent Mines, s-l, Durham	300 0 0	—		177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, c, Tavistock†	1 0 0	310		1124 0 0	4 0 0	Jan. 1869
656	Ding Dong, t, Gulval‡	49 14 6	—		0 10 0	0 10 0	Sept. 1867
358	Dolcoath, c, t, Camborne	128 17 6	500	470 500	874 10 0	0 10 0	Feb. 1869
6144	East Caradon, c, St. Cleer†	2 14 6	9½	8¼ 8¾	14 11 6	0 2 0	July 1867
300	East Darren, l, Cardiganshire	32 0 0	—		162 10 0	2 0 0	Nov. 1868
128	East Pool, t, c, Pool, Illogan	24 5 0	—		452 10 0	5 0 0	Jan. 1869
1906	East Wheal Lovell, t, Wendron	3 9 0	9	8 8½	4 11 6	0 10 0	Jan. 1869
2800	Foxdale, l, Isle of Man*	25 0 0	—		72 10 0	0 10 0	Jan. 1869
5000	Frank Mills, l, Christow	3 18 6	4¼	3¾ 4	3 9 6	0 4 0	Feb. 1869
3350	Gawton, c, Tavistock	3 10 6	—		0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, l, Isle of Man*	4 0 0	20½	19 20	9 15 0	0 10 0	Dec. 1868
3000	Great Northern Manganese*	—	—		—	5 p.ct.	Feb. 1869
5908	Great Wheal Vor, t, c, Helston†	40 0 0	12½	11½ 12	13 16 0	0 5 0	Dec. 1868
1024	Herodsfoot, l, near Liskeard†	8 10 0	46	44 46	48 0 0	1 10 0	Oct. 1868
165	Levant, c, t, St. Just	10 8 1	—		1099 0 0	4 0 0	Jan. 1869
400	Lisburne, l, Cardiganshire	18 15 0	—		510 10 0	1 10 0	Nov. 1868
3000	Maes-y-Safn, l, Flint*	20 0 0	—		4 0 0	0 5 0	Oct. 1868
9000	Marke Valley, c, Caradon	4 10 6	9½	9 9¼	4 19 0	0 5 0	Jan. 1869
3000	Minera Boundary, l, Wrexham*	1 0 0	—		0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. l, Wrexham*	25 0 0	—		248 13 6	5 0 0	Feb. 1869
20000	Mining Co. of Ireland, c, l, cl.	7 0 0	—	11⅞	—	9 p.ct.	July 1868
40000	Mwyndy Iron Ore*†	3 5 0	—		0 11 6	0 3 0	Feb. 1869
200	Parys Mines, c, Anglesey*	50 0 0	—		162 10 0	2 10 0	Aug. 1868
5000	Penhalls, t, St. Agnes	3 0 0	5½		0 2 6	0 2 6	Jan. 1869
12800	Prince of Wales, t, Calstock	0 12 6	20s.	24s. 26s.	0 8 6	0 1 0	Nov. 1868
1120	Providence, t, Uny Lelant†	10 6 7	37	35 37½	86 12 6	1 0 0	Dec. 1868
512	South Caradon, c, St. Cleer†	1 5 0	—	365 375	607 10 0	5 0 0	Jan. 1869
6000	South Darren, l, Cardigan*	3 6 6	—		0 13 0	0 1 6	Aug. 1868
937	South Wh. Crofty, c, Illogan	24 10 10	15	14 15	1 10 0	0 10 0	Feb. 1869
496	So. Wh. Frances, c, Illog.†‡	18 18 9	18	16 17	374 13 6	1 0 0	Mar. 1868
508	Summer Hill, l, Mold	3 18 6	—		2 5 6	0 5 0	Feb. 1868
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	18	17 18	20 1 0	0 5 0	Nov. 1868
2000	Trumpet Cons., t, Helston	11 10 0	—	18 19	8 0 0	0 10 0	Jan. 1869
3000	W. Chiverton, l, Perranzabuloe†	10 0 0	56	52 54	31 7 6	2 0 0	Nov. 1868
5000	West Godolphin, t, c, Breage	0 1 0	—		0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, c, Camborne†	47 0 0	210	195 205	616 0 0	6 0 0	Dec. 1868
512	Wheal Basset, c, Illogan†	5 2 6	75	70 75	632 10 0	1 0 0	June 1868
1024	Wheal Friendship, c, Tavistock	20 0 0	—		300 10 0	0 10 0	Nov. 1866
512	Wheal Jane, s-l, Kea	10 15 0	50	42½ 47½	21 0 0	2 0 0	Nov. 1868
4295	Wheal Kitty, t, St. Agnes	5 4 6	4¼	4 4¼	3 11 0	0 2 0	Nov. 1868
1024	Wheal Mary Ann, l, Menheniot†	8 0 0	22	20 22	66 17 6	0 17 6	Dec. 1868
80	Wheal Owles, t, St. Just‡	70 0 0	230		350 13 0	7 10 0	Feb. 1868
396	Wheal Seton, t, c, Camborne	58 10 0	85	75 80	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe*	0 5 0	—		1 0 0	0 10 0	Dec. 1867
17000	Wicklow, c, i, Wicklow	2 10 0	—	11⅞	49 1 0	0 5 0	Oct. 1868

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
35000	Alamillos, l, Spain*†	2 0 0	1¾	1½ 1¾	0 4 6	0 2 0	Sept. 1868
20000	Australian, c, South Australia†‡	7 7 6	—		0 1 6	0 0 6	Aug. 1868
15000	Cape Copper Mining*†	7 0 0	—	13¾ 14	3 17 6	0 15 0	Nov. 1868
30000	Central American Association*†	1 10 0	1⅛		—	—	
76162	Don Pedro North del Rey*†‡	0 14 0	4⅜	4⅛ 4⅜	1 0 3	0 3 6	Nov. 1868
70000	English and Australian, c‡	2 10 0	⅞		—	0 1 0	Feb. 1868
25000	Fortuna, l, Spain*†	2 0 0	—		1 11 10	0 2 6	Sept. 1868
20000	Gen. Mining Assoc., Nova Scotia†	20 0 0	—		23 10 0	0 15 0	June 1867
10000	Gonnesa, l.*	5 0 0	—		10 per cent.		Aug. 1868
68000	Kapunda Mining Co., Austra†‡	1 0 0	—		0 1 10	0 0 6	Nov. 1868
15000	Linares, t, Spain*†	3 0 0	3	2¾ 3¼	11 15 0	0 3 4	Sept. 1868
50000	Panulcillo, c, Chili*†	3 0 0	1½	1 1½	10 per cent.		Yearly.
6000	Peel River Land and Mineral*†	100 0 0	36	33 36	—	—	
10000	Pontgibaud, s-l, France†	20 0 0	12		5 6 2	0 19 7	Dec. 1868
100000	Port Phillip, g, Clunes†	1 0 0	2	1¾ 2	1 1 6	0 1 6	Jan. 1869
120000	Scottish Australian Min. Co.†	1 0 0	1	¾ 1	10 per cent.		Nov. 1868
11000	St. John del Rey, Brazil*†	15 0 0	17	17½ 18	81 10 0	4 5 0	Dec. 1867
4000	Swedish Sulphur Ore*	2 10 0	—		7½ per cent.		Dec. 1868
13500	Vancouver Coal Mining*†‡	6 0 0	8½	7½ 8½	2 2 6	0 12 0	Nov. 1868
50000	Victoria (London) [25000 £1 pd., 25000 12s. 6d. pd.]				0 9 7	0 0 7	July 1868
40000	West Canada Mining Co.*	1 0 0	—		0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
50000	Anglo-Argentine, s, Argentine Republic*	1 0 0	1⅜		
100000	Anglo-Brazilian, g*†	0 10 0	⅝	⅜ ½	Nov. 1866
12500	Anglo-Italian, g*†	0 10 0	—	½ ¾	Jan. 1868
20000	Australian United, g	1 0 0	—		Mar. 1868
2464	Burra Burra, c, South Australia‡	5 0 0	—		
20000	Capula, s, Mexico*†	1 17 6	1¼		May 1868
30000	Chontales, g, s, Nicaragua*†	5 0 0	1¼	1⅛ 1¼	Mar. 1868
12000	Cobre Copper Company, c, Cuba†‡*	45 10 0	—		Jan. 1868
10000	Copiapo Mining Company, Chili†‡	16 10 0	—		
10000	Copiapo Smelting, Chili*	10 0 0	—		April 1866
300	Copper Miners' Co. of South Australia* [150 £100 pd., 150 £70 pd.]				Nov. 1866
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—		Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—		Fully pd.
50000	Frontino and Bolivia, g, New Granada*†	1 17 6	½	8s. 10s.	May 1868
150000	General Brazilian*	0 5 0	½	3s. 4s.	
80000	Great Northern, c, South Australia†	1 11 6	—		Sept. 1862
50000	Javali, g, Nicaragua	2 0 0	—		Jan. 1869
7927	Lusitanian (Portugal)†‡	2 15 0	—		Dec. 1866
83640	Mariquita, g, s, New Granada	1 0 0	—		Feb. 1868
12500	Nerbudda Coal and Iron, India*†	6 0 0	—		Dec. 1867
51000	New Quebrada, c, Venezuela*†	4 4 0	—		
80000	Pestarena United, g, Italy*†	2 17 6	1½	1⅜ 1⅝	
10178	Rhenish Consolidated, l [6000 £5 pd., 4178 £2 10s. pd.]	—	—		May 1866
100000	Rossa Grande, g, Brazil*†	0 14 0	—	24s. 26s.	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—		Sept. 1866
10000	San Roque, l, Spain	5 0 0	—		Fully pd.
10000	Sao Vicente, Brazil*†	1 0 0	1		Oct. 1868
100000	Taquaril, g, Brazil*	0 7 6	¾	11s. 13s.	Oct. 1868
43174	United Mexican, s, Mexico†‡*	28 5 2	—		May 1868
30000	Val Antigoria, g, Italy*	1 2 6	—		
6000	Val Sassam, s, c, l, Italy*†	8 0 0	—		Aug. 1868
45000	Victor Emanuel, c, Italy*	1 0 0	—		Fully pd.
20000	Washoe, g, Nevada†	5 0 0	—		Fully pd.
80000	Worthing, c, South Australia*†	1 0 0	—		Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—		Fully pd.
45000	Yudanamutana, c, South Australia*†‡	3 0 0	2⅛	1⅞ 2⅛	Fully pd.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
12000	Brynpostig, Montgomery, l*	1 0 0	—		
1000	Carn Brea, c, t, Illogan‡	30 0 0	21	17 20	June 1868
3000	Chiverton, l, Perranzabuloe	11 0 0	3⅛	2¾ 3	Nov. 1868
3000	Chiverton Moor, l, Perranzabuloe	6 13 6	4½	4 4¼	Nov. 1868
2880	Clifford Amalgamated, c, Gwennap‡	40 17 6	—		Oct. 1868
12800	Drake Walls, t, Calstock‡	2 10 0	⅞	16s. 18s.	Jan. 1868
512	East Basset, c, Redruth†‡	37 0 0	9	6 8	Nov. 1868
6000	East Carn Brea, c, Redruth‡	4 3 6	½	¼ ⅜	Dec. 1868
6000	East Grenville, c, Camborne	4 2 6	3⅜	3⅜ 3⅝	Nov. 1868
4000	East Wheal Russell, c, Tavistock†	13 13 6	—		Oct. 1868
6144	Gonamena, c, St. Cleer	7 12 9	1⅜		Dec. 1868
5000	Great North Downs, c, Redruth	6 13 0	2¼	2 2¼	Feb. 1867
4800	Great Retallack, s-l, b, Perranzabuloe	2 19 6	—	2¼ 2¾	Oct. 1868
5143	Great South Tolgus, c, Redruth	1 10 6	½		Dec. 1868
1798	Great Wheal Fortune, t, Breage	31 7 4	—		Mar. 1868
6000	Hingston Down, c, Calstock†	5 12 0	—		Dec. 1868
400	New Wheal Seton, c, Camborne	63 0 0	75	70 71	Jan. 1869
3457	North Downs, c, Redruth	5 8 10	⅝		Jan. 1868
695	North Roskear, c, Camborne	61 19 0	—	3 5	Jan. 1869
5936	North Treskerby, c, St. Agnes	1 13 10	1	19s. 21s.	Feb. 1869
3000	North Wheal Chiverton, l, Perranzabuloe	4 10 0	—		Nov. 1868
1024	Rose and Chiverton United, l, Newlyn	6 10 0	—	6½ 6¾	Jan. 1869
6138	South Condurrow, t, c, Camborne	4 10 6	⅞	⅞ 1	Feb. 1869
1000	South Merllyn, l, Flint	1 0 0	1		
940	St. Ives Consols, t, St. Ives‡	10 15 0	—	11 13	Nov. 1867
920	Stray Park, c, t, Camborne†‡	45 5 8	6	4 6	April 1868
1000	West Basset, c, Illogan†‡	2 0 0	—		May 1868
1024	West Caradon, c, St. Cleer‡‡	25 0 0	3	2¼ 3	Nov. 1868
12800	West Drake Walls, c, Calstock	0 7 6	—	3s. 5s.	Jan. 1869
2582	West Great Work, t, Breage	5 11 0	3¼		June 1866
6000	West St. Ives, t, c, St. Ives	0 3 6	—	4s. 6s.	Oct. 1868
512	West Wheal Frances, t, Illogan	106 15 0	41	41 43	
5000	West Wheal Kitty, t, St. Agnes	3 4 0	—	6s. 8s.	Nov. 1868
6000	Wheal Agar, c, Illogan	7 15 0	1⅛	1 1¼	Jan. 1869
512	Wheal Buller, c, Redruth†‡	28 5 0	—		Nov. 1868
811	Wheal Emily Henrietta, c, Illogan	20 15 0	22	20 22	Jan. 1869
5724	Wheal Grenville, c, Camborne†	10 10 0	1⅝	39s. 41s.	Dec. 1868
1040	Wheal Trelawny, s-l, Liskeard†	10 7 0	—	7 8	Dec. 1867
4096	Wheal Uny, t, c, Redruth	10 14 6	3¾	3⅜ 3⅝	Oct. 1868

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.
4000	Ballacorkish, I. of Man, l, c*	4 0 0	—	
4000	Bedford Consols, c, Tavistock	3 0 6	—	⅛ ¾
4000	Bedford United, c, Tavist.*	2 17 8	2¼	2 2¼
1248	Boscaswell, t, c, St. Just	7 6 0	—	
5000	Bottle Hill, t, Plympton	1 14 6	—	
12000	Bradda, c, l, Isle of Man*	1 10 0	2	
5000	Bryn Gwiog, l, Flint	0 18 0	—	
1200	Bryn Gwyn, l, Mold*‡	9 0 0	—	
7500	Brynystwith, l*	1 10 0	—	
1000	Budnick Consols, c	2 5 0	—	
6000	Bwadrain Cons., s-l, Cardig.	3 2 0	—	
30000	Caldbeck Fells, l, Cumberld.*	1 15 0	—	
1000	Camborne Consols, c	11 10 0	—	
11000	Cape Cornwall, t, c* [8000 £2 10s. pd., 3000 25s. pd.]			
5000	Capel Banhaglog, l, Mont.*	2 0 0	—	
914	Caradon Consols, c, St. Cleer	32 13 6	10	
1000	Cardynham China-clay*	3 0 0	—	
6000	Carn Camborne, c, Cambrn.	2 10 6	—	
20000	Carysfort [3200 £2½ pd., 16800 £1 ½ pd.]			
16000	Central Snailbeach l*	1 0 0	—	
3000	Chiverton Valley, l, Perranz.	2 0 0	—	
2048	Colquite & Callington Un., c.	1 3 0	—	2½ 2¾
256	Condurrow, c, t, Camborne‡	76 10 0	—	
50000	Connorree, c, sul, Wicklow*	1 0 0	4s.	
983	Copper Hill, c, Redruth‡	12 10 0	—	
1000	Cornwall Hematite Co.*	5 0 0	—	
1055	Craddock Moor, c, St. Cleer‡	14 6 0	—	
12000	Crelake, c, Tavistock	3 12 0	—	
6000	Cuddra, t, St. Austell	5 10 0	—	
300	Cwm Darren, Cardigan*	—	42½	40 42½
740	Eaglebrook, l, Talybont*	19 15 0	—	
1000	East Basset and Grylls, t	3 5 0	—	
4000	East Chiverton, l, Perranz.	3 6 3	1¾	1½ 1¾
4000	E. Gunnislake & S. Bed. c.	11 1 6	—	
6000	East Laxey, l, Isle of Man	3 0 0	—	
4096	E. New Wh. Lovell, t, Wend.	0 5 0	⅝	½ ⅝
3986	East Providence, t, Lelant	—	1	
5000	E. Rosewarne, c, t, Gwinear	2 19 0	—	
6000	East Snaefell, l, I. of Man*	3 0 0	—	
5610	East Seton, c, Camborne	0 16 6	1	18s. 20s.
2000	East Trumpet, c, t	1 15 0	2½	2¼ 2¼
1190	E. Wh. Agar, c, St. Cleer	12 17 0	—	
6000	East Wheal Reeth, Lelant	—	1⅜	
6000	Ebury Lead Min. Co., Flint*	1 15 0	—	
1026	Garden, c, Morvah	6 15 3	—	
6000	Gen. Min. Co. for Ireland, c.	5 10 0	—	
40000	Glasgow Caradon, c* [30,000 £1 p., 10,000 15s. p.]			
10000	Glan Alun, l, Mold*	0 12 0	⅝	⅜ ⅛
5700	Goginan, Cardigan, l	12 10 0	—	
6000	Gothic, s-l, Cardigan*	2 10 0	—	
486	Grambler & St. Aubyn, c†‡	74 0 0	—	
10000	Great Cwmsymlog, s-l*	1 15 0	—	
2866	Great Caradon, c, St. Ive	4 5 9	—	⅛ ¾
12500	Gt. No. Laxey (Isle of Man)*	1 0 0	2	1⅜ 1⅝
6000	Great N. Tolgus, c, Illogan	1 0 0	1⅛	
15000	Great Rhosesmor, l	5 0 0	—	
6000	Gt. S. Chiverton, s-l, Perranz	2 0 0	2¼	
6000	Great Western, t	2 0 0	2½	
3313	Gt. Wh. Baddern, t, Devoran	7 17 6	—	
119	Great Work, t, Germoe	100 0 0	—	
10240	Gunnislake (Clitters), t, c.	4 19 0	—	
6068	Gwydyr Park, l, Llanrwst	1 11 0	—	
6400	Harwood, l, Durham*	0 7 6	—	
1019	Leeds and St. Aubyn, t, c	19 13 4	—	
1000	Llywernog, l, Cardiganshire	13 0 0	7½	
5120	Lovell Consols, Wendron, t.	0 6 0	1⅛	1 1⅛
6000	Maudlin, c, Lostwithiel	4 7 0	—	
6000	Mid-Wales, l,*	2 10 0	—	
4662	Minera Union, l [2500 £4 pd., 2162 £2 5s. pd.]			
1000	Montgomeryshire, l, b*	3 0 0	—	
640	Mount Pleasant, l, Mold	4 0 0	—	
1024	Nangiles, t, c, Kea	33 12 0	12	
1500	New Chiverton, l, Perranz.	1 4 6	—	
6000	New Clifford, c, Gwennap*	3 0 0	—	
6400	N. Crow Hill, l, St. Stephen.	3 6 6	—	
6514	New E. Russell, c, Tavistock	0 12 6	—	
20000	New Gt. Cons., c, Tavistock	1 0 0	—	
6400	New Pembroke, St. Blaz. t, c	1 12 0	—	
3680	New Treleigh, c, Redruth	—	—	
6000	New Westminster, l	6 0 0	—	
4096	New Wh. Lovell, t, Wendron	1 19 6	3⅜	2¾ 3
2000	N. Wh. Towan, c, t, Wendron	1 10 0	—	
5000	No. Dolcoath, c, Camborne	4 3 0	—	
1361	No. Grambler, c, Redruth	9 3 9	—	
6000	North Jane, t, s-l, Kenwyn	3 6 0	¾	½ ¾
2000	North Levant, t, c, St. Just	10 12 0	11	11 11½
4000	No. Phœnix, c, Linkinhorne	4 11 0	—	
3240	North Pool, c, Illogan	6 3 6	—	
1024	No. Retallack, c, Perrazabuloe	2 0 0	—	
6000	North Wheal Basset, c, t†	5 0 0	—	
5610	N. Wh. Crofty, c, Illogan†	3 11 3	1¼	⅞ 1⅛
12288	Okel Tor, c, Calstock	2 7 4	—	
8000	Old Gunnislake, c, Calstock	3 9 6	—	
6400	Par Consols, c, St. Blazey†‡	2 14 6	—	
5754	Pedn-an-drea, t, Redruth	7 18 0	5	7 8
5000	Pendeen Consols, c, St. Just	7 11 0	—	
4000	Penhale United, s-l, Perran.*	4 0 0	—	
2177	Penhale Wh. Vor, t, c, Breage	6 12 6	—	
1772	Polberro, t, St. Agnes	15 0 0	—	
6000	Prosper U., t, c, St. Hilary	9 14 0	—	
4620	Redmoor, c, t, Callington	2 1 0	¾	½ ¾
6000	Reinnie Laxey, l, I. of Man*	4 10 0	—	
3000	Rhydtalog, s-l, Cardigan	0 5 0	—	
6000	Roaring Water, c*	2 15 0	—	
2000	Rosecliff and Tolcarne, l*	9 15 0	—	
5915	Rosewall Hill & Ransom, c.	3 10 0	1⅛	20s. 22s.
10000	Royalton, t, St. Columb	1 1 0	—	
20500	Snaefell, l, Isle of Man*	1 0 0	—	
512	South Basset, c, Gwennap	30 10 0	—	
5000	South Carn Brea, c, t	0 5 0	½	5s. 6s.
3000	So. Chiverton, s, l, Perranz.	6 2 6	—	
3000	So. Fowey, c, Tywardreath	1 0 0	—	
5000	So. Gt. Work, t, c, St. Hilary	0 3 6	—	
3395	So. Herodsfoot, l, Liskeard	4 10 0	1	
30210	South of Scotland, c*t	1 0 0	—	
400	So. Wh. Seton, c, Camborne	83 13 0	—	
236	Spearne Consols, t, St. Just	4 4 4	—	
242	Spearne Moor, t, St. Just	6 2 0	—	
673	St. Ives Wh. Allen, t, St. Ives	18 18 7	—	
8771	St. Just Amalg., t,* [6000 £3 10s. pd., 2771 £2 5s. pd.			
300	Steeple Aston Iron Ore Co.	7 0 0	—	
7000	Stiperstones, l, Salop*	6 0 0	—	
6000	Tamar Valley, s-l, Beeralston	0 14 0	—	
3500	Tin Hill, t, St. Austell	1 12 0	—	
548	Trelyon Consols, t, St. Ives	16 10 0	4½	
501	Tresavean and Trethurrup	16 11 0	—	
4096	Trewetha, s-l, Menheniot	10 19 6	—	
1943	Treworlis, t, Wendron	11 15 4	—	
4200	Vigra and Clogau, c, Dolg.*‡	5 10 0	—	
256	West Damsel, c, Gwennap	38 10 0	—	12 13
12000	W. Maria & Fortes., c, Lam.	3 13 0	—	
12800	West Prince of Wales, c	0 11 0	—	
1000	West Rose Down, c, Linking.	22 10 0	—	
512	West Tolgus, c, Redruth	62 0 0	35	32½ 35
4096	W. Wh. Tremayne, St. Erth	0 12 0	—	
741	Wheal Basset and Grylls, t.	7 18 6	—	
6000	Wheal Crebor, c, Tavistock	2 10 6	7s.	6s. 8s.
4000	Wh. Emma, c, Buckfastleigh	3 19 0	—	
1560	Wheal Falmouth & Sperries	9 1 0	—	
3700	Wheal Ida, s-l, St. Ive	1 8 0	—	
1024	Wh. Kitty, t, Uny Lelant†	3 10 6	—	¼ ⅜
896	Wh. Margaret, t, Uny Le.‡	13 17 6	5	
728	Wheal Margery, St. Ives, t, c	27 4 0	—	
6000	Wheal Mary Florence, c*	2 6 0	—	
1000	Wh. Mary Hutchins, c, Plymp.	2 0 6	—	
2000	Wheal Rose, c, Scorrier	1 0 0	—	
4663	Wheal Sparnon, c	3 17 0	—	
1920	Wh. Trannack, c, Sithney	1 13 3	—	
1200	Wheal Trevenna, t, c*	10 0 0	—	

IRON AND COAL COMPANIES.

100	Bolckow, Vaughan, and Co.*	30 0 0	9¼ 10 pm.
100	Brown, John, and Co.*	70 0 0	28 22 dis.
100	Charles Cammell and Co.*	80 0 0	30½ 29⅝ dis.
10	Consett Iron Company*	7 10 0	1 1¼ pm.
32	Ebbw Vale Iron Co.*	27 10 0	13¼ 12¾ dis.
15	Hopkins, Gilkes, and Co.*	10 0 0	2 — dis.
12½	Mersey Steel and Iron Co.*	11 10 0	8½ — dis.
10	Midland Iron Company*	5 0 0	7⅜ 7⅝ pm.
35	Palmer's Shpbldg. & Iron Co.*	25 0 0	6½ 6 dis.
100	Parkgate Iron Company*	57 10 0	35 33 dis.
20	Patent Shaft & Axletree Co.*	10 0 0	5¼ 5¾ pm.
50	Rhymney Iron Company	50 0 0	21 19 dis.
15	Ditto, New	15 0 0	5¼ 6½ dis.
100	Sheepbridge Coal & Iron Co.*	50 0 0	23 21 dis.
50	Shotts Iron Company	50 0 0	16 — dis.
100	Staveley Coal and Iron Co.*	60 0 0	29 31 pm.
100	Thames Iron Company*	100 0 0	70 — dis.

b, blende; *cl*, coal; *c*, copper; *g*, gold; *l*, lead; *s*, silver; *sl*, slate; *sl*, silver-lead; *t*, tin; *z*, zinc.

, Companies marked thus * have been incorporated with Limited Liability; those marked † have been admitted on the Stock Exchange, those marked thus ‡ have paid Dividends.

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